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DEVELOPMENTAL STUDENTS' LEVELS OF ENGAGEMENT AND STUDENT SUCCESS IN TWO-YEAR INSTITUTIONS: A STUDY OF A SUBURBAN COMMUNITY COLLEGE SYSTEM IN TEXAS

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by

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Dedication

This study is dedicated to my deceased paternal and maternal grandparents from Sierra Leone, West Africa whom I never met. Though never formally educated, you wrote memoirs of your journey through amazing stories shared by many who were blessed to know you. You also planted seeds of hope in your children that have blossomed into forests in your grandchildren. I have inherited the valuable lessons and share them with anyone willing to listen. I will forever live the words in Krio *SABI No GeT Wo RI {West African proverb means knowledge has no worry}*.

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DEVELOPMENTAL STUDENTS' LEVELS OF ENGAGEMENT AND STUDENT SUCCESS IN TWO-YEAR INSTITUTIONS: A STUDY OF A SUBURBAN COMMUNITY COLLEGE SYSTEM IN TEXAS

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The University of Texas at Austin, 2011

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The need for development education for first year community college students is a growing trend and has a variety of solutions. Engagement and retention of these students is vital to the success of the student and the college in which they attend. Taking developmental education courses should not be repetitive hurdles for a college student. This study is to establish the level of engagement of community college students who are enrolled in developmental education compared to students not enrolled in developmental education and their levels of success. The study evaluates administrative practices that engage developmental students in 2-year institutions.

This study aims at increasing successful outcomes in developmental education students through research. The study of levels of engagement, retention, successful strategies and academic support may be the determining factor of success of developmental education students and the 2-year institution in which they are enrolled.

Quantitative analysis will determine if there are significant differences in the engagement levels among first year developmental education students versus first year

non-developmental college students within 2-year institutions and what institutional practices or academic support initiatives support developmental students' engagement in 2-year institutions.

The instrument used was the 2009 SENSE (Survey of Entering Student Engagement). This tool assists colleges to focus on the "front door" of the students' college experience. This study uses an independent sample t-test to analyze the responses of students currently enrolled in developmental education courses versus students enrolled in non-developmental courses. The SENSE Survey was administered to students at 120 member community colleges during the fourth and fifth week of the fall 2009 semester. Fall 2009 was the first national administration of the survey. Lone Star College System, a 2-year community college system in suburban Houston, TX, was specifically examined.

This study determines the significance of implementation of successful programs and academic support procedures to enhance the college experiences and performance of students enrolled in developmental education, increases more efficient use of college resources, and assists students to complete developmental courses to persist into college level courses.

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Chapter One: Introduction

Furthering education is one of the most common ways for personal and career advancement. Adults enroll in community colleges all over the country with goals of completing degrees to advance their career and personal interests. "As is typical in a recession, many community colleges are experiencing a surge in enrollment, at precisely the same time that they must-like many enterprises, both public and private-contend with choking constraints on resources" (McClenney, 2009, p. 1). Community colleges are filling the need of their communities by producing graduates better prepared for successful workforce participation and better prepared for higher education program entry. Community colleges have assumed an increasingly central role in the nation's education and training system (Kane & Rouse, 1999).

> The American spirit and dream are more alive in community colleges than anywhere. In responding to the forces in society that are reshaping the world and the immediacy with which workers will require retraining or updating of job skills to maintain a vital economy, community colleges must act quickly, effectively, and decisively. They must reconsider operational strategies and become engineers of innovation and transformation-applying equal and positive to the external forces that are driving change. (Roueche & Jones, 2005, p. ix)

"Changes in the world of higher education are occurring at a dizzying pace. As a college community turns to address a challenge in one direction, a new and unexpected challenge propels it in another" (Roueche & Jones, 2005, p. x). Today, more and more

students are seeking their education in community colleges. "Community colleges enroll over half of all beginning public postsecondary students including disproportionate numbers of adult, first generation, low income, and other underrepresented subpopulations" (Schuetz & Barr, 2008, p. 17).

> Community colleges are designed to meet the needs of their local constituents. In addition to costing less than other higher education options, community colleges frequently offer flexible schedules, part time programs, and other services that are important to students who are working and/or have families. (Fabes & Matoon, 2007, p. 1)

Accessibility, cost efficiency, and small teacher to student ratios are some of the factors attracting students to community colleges. In addition, geographic accessibility and flexible scheduling have been supplementary attractions to community colleges (Kane & Rouse, 1999).

The surge in enrollments within community colleges across the nation is the basis for the need to assess the skills of entering students early in their college careers. New college students typically start their college ventures in the fall semester. According to McCabe (2000), "a third of those who enter college are underprepared" (p. vii). "It is critically important to focus resources on the needs of students in that first term," states Kay M. McClenney, a senior lecturer at the College of Education at The University of Texas at Austin, who directs an annual survey of community college students (Blum, 2007, p. 2).

Developmental education is defined as a variety of courses that teach material not typically offered in high school but frequently necessary for success in college (Boylan & Bonham, 2007, p. 2). "Studies show that students who enroll in and successfully complete remedial courses in their first term are more likely to graduate or stay on track to graduate than any other population of students, including those who were never in remedial education" (Blum, 2007, p. 2). Community colleges are challenged with the duty of transitioning students through developmental education (or also known as remedial) courses.

Schuetz and Barr note that:

> As demands for institutional accountability increase and growing proportions of underprepared community college students are arriving on campus, this volume addresses the important task of identifying promising new perspectives and practices that offer colleges more effective leverage over student outcomes. (2008, p. 106)

Successfully transitioning students through the required levels of developmental education courses to college level courses has become an issue. The idea is that colleges have not been successful in the area of retaining developmental students and they leave college. More students leave their college or university prior to degree completion than stay (Tinto, 1987). Colleges that offer placement exams assess the student and may deem placement in developmental education courses necessary.

Placement exams are administered to incoming college students to determine if developmental courses are required. Students can be placed in developmental mathematics, developmental reading, or developmental writing courses. For example, students that do not meet the requirements for college level mathematics are advised or mandatorily placed into developmental mathematics courses, which teach students the basic mathematical principles needed to meet the skill level of college level mathematics. According to Blum (2007):

> Students are required to take such courses based on their scores on placement tests taken after admission. Remedial math, along with other developmental education programs in reading and writing, is considered a core offering at nearly every two-year college, meant to provide a bridge to college-level work for underprepared students. (p. 2)

Students do not earn college credit but develop the skills necessary for the next level of developmental education. The levels of developmental education per subject range between two and four courses that must be passed before the student can transition into college level courses. If the required phases of developmental education are not passed, the student gains no college credit and must enroll in that course again until they have successfully passed it (with a "C" or better).

Statement of Problem

The community colleges across the nation value access, student success, and teaching and learning. According to a report from the Community College Survey of Student Engagement:

> Community colleges have long distinguished themselves through their efforts to put students first and their emphasis on teaching and learning. Innovations in curriculum, teaching strategies, and support services for students are hallmarks of these institutions. Yet while community colleges often pioneer new strategies, they don't have sufficient access to tools that help them assess their initiatives and measure their progress toward key goals. (CCSSE, 2010, p. iii)

Colleges must meet a variety of their students' educational needs, thus leading to the pre-requisite of developmental education.

"The reality for community colleges is this: No matter how good our colleges are today-and they do contribute mightily to educational access, work-force development, and economic prosperity-they simply are not yet good enough" (McClenney, 2009, p. 1). According to McClenney (2009), the following are problem areas:

- Roughly 14% of students who begin studies in a community college do not complete a single credit in their first academic term.

- At least a quarter of entering fall-term students do not return for their subsequent spring term. Almost half, on average, are gone from our classrooms by the second fall term.
- Just under 30% have earned an associate degree after three years.
- Fewer than half of community-college students, who aspire to earn associate or bachelor's degrees or transfer to four-year institutions, achieve their goals within six years. (p. 1)

Community colleges that encompass developmental education programs must examine closely if their programs are meeting the educational needs of their students. McClenney (2009) suggests that colleges answer the following questions:

- Does the college have in place, and does it consistently apply, policies that require assessment and course placement; enrollment in remedial education in the first term of college (starting with reading, if so indicated); elimination of late registration; college orientation; and enrollment of all entering remedial students in a student-success course?
- What percentage of remedial courses are taught by part-time faculty members? By faculty members who have been adequately prepared to teach those courses?
- What percentage of the instructional budget is allocated to support remedial education? How does that percentage compare with the proportion of revenue-tuition and public support-that is produced through remedial-education enrollments?

- Does the college routinely track the progress of entering students in remedial education, collecting data about the percentage of students who successfully complete remedial courses and sequences as well as their first related college-level courses? Are those data widely shared and discussed?
- Does the college rigorously evaluate its alternative strategies for serving remedial students? Does the college budget reflect a commitment to bring effective strategies to scale? (p. 2)

Developmental courses are required courses for students who have been determined through assessment to need additional remediation in a reading, writing, and/or mathematics. Remediation is a significant part of higher education with approximately one-third of students needing developmental education (Bettinger & Long, 2004). These courses develop the students' comprehension in that subject. The problem is that developmental education courses are courses that are taken by community college students but not successfully completed.

> Achieving the Dream (AtD) colleges have also found that students who fail to complete their first developmental education courses usually do not return the following semester; nor do they complete their other requirements for continuing in college. Their frustration with their lack of progress and the financial burden of having to retake courses contribute to low rates of retention and completion. (Biswas, 2007, p. 1)

Tracking students for college readiness or providing academic support programs may be the answers to the developmental education problems.

Purpose of the Study

Colleges across the country have observed an increase in the number of students enrolled in developmental education courses. Schuetz and Barr (2008) note the impact of underprepared students.

> Underprepared students have been a significant presence in community colleges for decades. The growing size of this student population and the urgent reality of workforce accountability and other demands that did not exist forty years ago are pushing colleges to find more effective ways to support success for such students. (p. 113)

"Each year more than half a million people enroll in remedial programs and gain the skills to become positive contributors to society" (McCabe, 2000, p. viii). The reasons for this influx of students vary from being un-equipped with college ready skills from high school, to a gap in the amount of time since the student was enrolled in college. Regardless of the reason, community colleges are charged with transitioning these students from remedial courses to college level courses. "Estimates vary, but many community-college educators and experts say that, on average, between 40 percent and 70 percent of new students entering two year colleges around the country place into remedial math" (Blum, 2007, p. 1). This statistic is reflective of all developmental courses and illustrates the necessity for successful outcomes in developmental education.

Some colleges have not been successful at providing the resources needed so students can move through the sequence of developmental education courses even though they can financially afford to be successful. "At a cost of only 1% of the U.S. higher education expenditures, remedial education is the nation's most cost-effective educational program (McCabe, 2000, p. viii). The purpose of this study is to research developmental (or remedial) education, engagement levels, and institutional practices in 2-year institutions.

Research Questions

1. Are there significant differences in the engagement levels among first year developmental education students versus first year non-developmental college students within 2-year institutions?
2. What institutional practices or academic support initiatives support developmental students' engagement in 2-year institutions?

Methodology

A quantitative method design was employed to research engagement levels of first year developmental education students enrolled in 2-year institutions along with the educational programs or institutional practices that support their retention and persistence. The instrument used was the SENSE (Survey of Entering Student Engagement). This tool assists colleges' focus on the "front door" of the students' college experience. The survey is grounded in research about what works in retaining and supporting entering students. SENSE collects and analyzes data about institutional

practices and student behavior in the earliest weeks of college (SENSE, 2010a). This study used t-tests to enable the researcher to analyze the significant experiences of students enrolled in developmental courses versus students not enrolled in developmental education courses.

Definition of Terms

College-ready- A student academically prepared to apply the skills and knowledge successfully in entry-level courses offered at the college or university.

Developmental education- A variety of courses that teach material not typically offered in high school but frequently necessary for success in college (Boylan & Bonham, 2007, p. 2).

Engagement- Engagement refers to the amount of time and energy that students invest in educationally meaningful activities (McClenney, 2006).

Retention- An estimate to "measure how much student growth takes place, how valued and respected students feel on campus, and how effectively the campus delivers what students expect, need and want" (Levitz, Noel, & Richter, 1999, pp. 31-32).

Remediation- A process of taking a course again to further develop a skill.

Gatekeeper Courses- Pre-requisite courses within general education taken at the college level that must be passed in order to move forward in a degree program.

Success –Completion of a developmental education course by passing the course with a letter grade of "C" or better.

Delimitation

Delimitations of this study include the following:

1. This study will focus on engagement levels of developmental education students within two-year colleges.
2. The colleges that will be part of this study utilized the Survey of Student Engagement (SENSE).
3. The study will not attempt to predict that one strategy or academic support program will assist developmental education students persist through developmental education courses.
4. The study will focus on the experiences of community college level students who are enrolled or have been enrolled in developmental education courses only.

Limitations

The limitations to this study will include the following:

1. This research requires knowledge of survey design, statistical techniques, and research familiarity.
2. Survey constraints include the number of questions and length of student response.
3. Planning, creating, and designing of the survey entails months of design and examination of the study.

4. The research performed for this study focuses on students enrolled in developmental education courses within community colleges.

Assumptions

For the purpose of this study the following assumptions are made:

1. Every student enrolled in a developmental education courses are enrolled in that course for the purpose of moving through the sequences of courses to advance to college level courses.
2. The student is not receiving any additional assistance outside of the college to pass the developmental education courses; and every student responded to the survey accurately.

Significance of the Study

Like gatekeeper courses, developmental education courses are significant in moving students forward toward the ultimate goal of obtaining a degree. Learning what specific strategies or academic support procedures assist students to succeed through these courses is vital for the college and the student. Successful strategies or academic support programs implemented early may aid students to successfully pass the levels of developmental education courses. Thorough research may assist colleges develop techniques specific to the students within their college and may aid students in saving time, money, and might remove anxiety while increasing successful outcomes in developmental education. The study of levels of engagement, retention, successful

strategies and academic support may be the determining factors of success of the student and the college.

Summary

The need for development education for first year community college students is a growing trend and has a variety of solutions. Engagement and retention of these students is vital to the success of the student and the college in which they attend. Taking developmental education courses should not be repetitive hurdles for a college student. According to Bonham, "There are students taking these courses three, four, five times before they can pass them, and many who drop out, give up before they do" (Blum, 2007, p. 2). It is vital that community colleges implement successful program and academic support procedures to enhance the college experiences and performance of students enrolled in developmental education.

Chapter Two: Review of Literature

Overview of the Community College

Since the early 1900s community colleges have provided academic enrichment to students across the nation. The growth of community colleges has been credited to access and affordability of the courses that it offers. It is well chronicled that the G.I. Bill created opportunities to afford an education for veterans of the United States. The 1947 Truman Commission Report also contributed to the expansion of colleges (Bailey & Smith, 2006). To date, community colleges are vital educational entities for adults within their communities.

The American Association of Community Colleges (AACC) shares the following regarding community colleges:

> Community colleges are centers of educational opportunity. They are an American invention that put publicly funded higher education at close-to-home facilities, beginning nearly 100 years ago with Joliet Junior College. Since then, they have been inclusive institutions that welcome all who desire to learn, regardless of wealth, heritage, or previous academic experience. The process of making higher education available to the maximum number of people continues to evolve at 1,173 public and independent community colleges. When the branch campuses of community colleges are included, the number totals about 1,600. (AACC, 2010a)

Community colleges provide access to education for adults with no prior experience in higher education (CCRC, 2006). One hundred years after community colleges opened their doors, they have creatively strived to meet the needs of the changing community, trends in employment, cultures, and developmental needs of students.

Despite the efforts community colleges have made to provide educational training to all students, some students have not arrived prepared for the rigor of the course work. Though community colleges provide access, "only about one third of all community college students receive any degree or certificate, even eight years after initial college enrollment. Twenty percent do not complete ten credits in that period of time" (Bailey et al., 2005, p. 10). Two thirds of community college students are not academically prepared for college and contain academic skills weak in at least one major subject area (CCRC, 2008). In other words, community college students need additional support to assist them to be successful in their basic skills.

Basic skills deficiencies jeopardize students' capability to thrive in college-level courses. In fact, the barriers that college students who are deficient academically face are burdensome. The Community College Research Center (2008) found that "students who enroll in remediation are less likely to complete degrees or transfer than non-developmental students (p. 3). In addition, nationally "nearly 50% of entering students drop out before their second year. Other students stay in school, but struggle to complete developmental sequences" (SENSE, 2010b). Colleges must find successful

practices, programs, and solutions for the growing numbers of students enrolled in developmental education not only to fulfill the mission of the college, but to better serve every student seeking higher education.

In the future, community colleges have several obstacles to overcome. A report published by California Tomorrow (2007) further details the educational challenges that community colleges must face:

> But community colleges are also facing tremendous challenges that threaten to undermine their capacity to maintain, improve, and expand their innovative workforce preparation and basic skills programs. Among these challenges are the pressures of unprecedented enrollment demand for the accessible and affordable educational programs, the growth in under preparedness among students entering their doors, and the challenges of developing and sustaining high cost instructional approaches and support services that are essential to meet the needs of students who are learning English, working several jobs, raising children and helping to support extended families. (p. 3)

With challenges, come opportunities for community colleges. Colleges have the opportunity to learn from their mistakes, and polish their accomplishments. *The Creative Community College: Leading Change Through Innovation* (2008) noted some certainties for colleges:

- The lines between K-12, community college, and baccalaureate institutions will disappear. The community college educational mission

will absorb the others, to propel these colleges into becoming the largest segment of higher education.

- Student enrollments will increase four-fold on some campuses in a span of 20 years.
- Changing demographics will require colleges to provide developmental education, orientation, and first-generation student services for the largest at-risk student body ever seen on our campuses.
- Community colleges should not expect the already-reduced federal and state funding to return but rather raise funds to become more self-sustaining.
- Managing community colleges is a big business; some already have more students and personnel than the largest of universities and corporations.
- Community will never have the same connotation it had when community colleges were first being built or that it has today.
- By 2010, the century's first decade will have seen three of every four community college presidents retired and replaced. New leadership styles will accompany new leaders to their posts.
- Technology will enable and significantly improve faculty/student engagement. Soon, teachers and learning objects will virtually appear in three dimensions wherever and whenever students need. Education will continue to be increasingly mobile. (Roueche et al., p. 253)

Theories and Models

Astin's student development theory. Astin's (1999) Student Development Theory supports college persistence and describes the emotional and physical drive that students apply towards their education. The learners' learning is enhanced by the rigor dedicated to their academic career. The student's academic development is enhanced by academic support programs and interaction. Astin's theory supports the idea that students with high levels of involvement in studying, extracurricular activities, and constant interaction with faculty are prone to persist than students who do not participate in the same activities. Though Astin's research has been based on university level students, generalities can be made regarding the importance of student involvement that in turn leads to student success within community colleges.

Tinto's interactionalist theory. Vincent Tinto's (1987) Interactionalist theory of student persistence and retention describes the community college student as a melting pot of diversity. The theory supports the idea that each student arrives to college with an array of academic, cultural, and social backgrounds. The theory explains the reasons that some students succeed scholastically where other students do not. The cultural differences between students can also be a strong factor that alters student persistence. Some cultures stress the importance of education where others do not. Tinto further documents that academic and social integration for the student with the institution occurs through educational and social communities on the campus.

Tinto's integration model. Tinto's *Integration Model* (1987) suggests that institutions of higher learning that incorporate the academic environment with extracurricular interests of its students have a better chance of retaining those students. This model says that students involved in both entities increase their chances of staying in college, which in return increases the colleges overall retention rates. Tinto developed a model that incorporates the significance of engagement activities and academics. The model links the formal and informal aspects of college that are essential in success of college students.

Overview of Developmental Education

One of the purposes of developmental education is to provide and categorize remedial services offered to students. Developmental education–often called "remediation"–has become an integral part of the community college mission, offering instruction in basic reading, writing, and math skills to enable under-prepared students to master the college curriculum (CCRC, 2002). The series of courses and services are created and administered in an effort to assist and retain students and ensure that they complete their higher education goals. Developmental education is, therefore an umbrella under which a continuum of courses and services are provided (Boylan & Bonham, 2007).

Community colleges offer open access education. This allows for a variety of student proficiencies in developmental subjects such as mathematics, reading, and writing. The open access allows for an array of students to enter college with variations

of range in their levels of comprehension. Boylan and Bonham (2007) further noted that developmental education efforts also included a variety of courses that teach material not typically offered in high school but frequently necessary for success in college (p. 2).

According to the National Center for Education Statistics (2003) 99% of community colleges and approximately 70% of universities offer developmental courses. This is a strong indication that developmental education has additional challenges that college leaders must face. "Although colleges attempt to increase student preparedness in a variety of ways, developmental education courses are the most visible form of remediation in community colleges" (CCRC, 2002, p. 1).

Developmental education provides students with the basic skills needed to successfully meet the competence criteria for college level course work. When completed, it provides an introduction to the student of what to expect in the college course they will enroll in for credit.

To attend to the needs of developmental education, institutions of higher learning must make remediation a priority. Colleges that are successful at providing the fundamentals needed by students to move them into college level courses are accomplishing the goals of remedial education. Boylan states we should not be shocked when developmental education is flourishing at institutions where it is precedence (2002). It is imperative that developmental education be a priority within community colleges because of the large number of students who are enrolling in one or more developmental courses per year.

Previous research has shown that intervention may lead to prevention for future students. A majority of first-time freshmen are considerably older and have not been in a classroom in a long time; they don't have the skills they need to succeed at college-level work without intervention (Roueche & Roueche, 1999). "Community colleges have a particularly important role. They educate the most deficient students and prepare them for employment and personal advancement" (McCabe, 2000, p. 13). This validates the necessity for intercession in developmental education for all ages and skill levels of college students.

Programs that have the ability to meet the needs of a variety of students have a stronger opportunity in retaining them and providing for their remediation needs. McCabe (2000) notes the following techniques, models, or structures that will contribute to successful remediation:

- Implementation of mandatory assessment and placement.
- Establishment of clearly specified goals and objectives for developmental programs and courses.
- Use of mastery learning techniques in remedial courses.
- Provision of high degree of structure in remedial courses.
- Use of variety of approaches and methods in remedial instruction.
- Application of sound cognitive theory in the design and delivery of remedial courses.
- Provision of a centralized or highly coordinated remedial program.

- Use of a formative evaluation to guide program development and improvements.
- Establishment of a strong philosophy of learning to develop program goals and objectives and to deliver program services.
- Provision of a counseling component integrated into the structure of remedial education.
- Provision of tutoring performed by well-trained tutors.
- Integration of classroom and laboratory activities.
- Establishment of an institution wide commitment to remediation.
- Assurance of consistency between exit standards for remedial courses and entry standards for regular curriculum.
- Use of learning communities in remedial instruction.
- Use of supplemental instruction, particularly video based.
- Provision of supplemental instruction to support remedial courses.
- Provision courses or workshops on strategic thinking.
- Provision of staff training and professional development for those who work with underprepared students.
- Provision of ongoing student orientation courses.
- Integration of critical thinking into the remedial curriculum. (2000, p. 45)

Developmental Education: Past, Present, and Future

Community colleges strive to provide open access within the community they serve. "Community colleges have extended an invitation in the spirit and language of

the “open door” and laid out the welcome mat to a highly diverse population; community colleges are obligated on principle and funded by law to map the abilities of under prepared students in their curriculum and instruction, and to give those students true access to higher education” (Roueche & Roueche, 1999, p. 8).

As communities became more diverse, so did the community colleges. Students from all races, ethnicities, and social classes took advantage of the opportunity to educate themselves. Higher education went through a transformation period that brought an assortment of diversity within the student that was scholastically unprepared (McCabe, 2000). The birth of remedial developmental education in the 1960s was needed for the students who were not college ready. As demographics transformed, community colleges maintained their ultimate goal of access for everyone. Community colleges symbolize the American values of meaningfulness and purpose of every person (McCabe, 2000). These same values lead to fundamental changes in higher education in North America.

The early 1960s brought positive changes within community college classrooms, but faced future challenges in attempting to provide the same education for every student. In the 1960s, the nation urgently strived for equality, and higher education responded by providing opportunities for people who previously had been excluded. As a result, remedial education programs became essential (McCabe, 2000). During this era, developmental education provided access to persons with disabilities, older adults, and women. Community colleges made the dream of education a reality for many.

Roueche (1977) noted that historically remedial courses were non-credit courses. College students protested spending time in a course for which no credit was allowed. "To make matters worse, students often recoil when told that they need to take (and pay for) courses that 'don't count' towards graduation. These courses stretch out the time and money to complete the degree, and some students see them as conspiracies to separate them from their money. Combine shaky preparation with suspicious attitude, and the odds of success aren't high" (Dad, 2009, p. 2). The decision to allow credit for development education courses is still of interest to students to this day. The 1970s brought additional ideas for developmental education within community colleges.

Not only was there question of whether remedial courses should be counted for credit but the question of mandatory testing also surfaced. Many minority advocates, concerned that minority students would be driven from colleges, vehemently opposed these changes (McCabe, 2000). The advocates suggested that mandatory testing discriminated minority students from college admission. These ideas came from the influx of students less prepared than their classmates. Teaching became a challenge for many instructors and students moved through the system without the proper proficiency upon graduation.

The 1980s were prosperous years for developmental education. The 1980s brought the birth of the National Association for Developmental Education (NADE). This organization was previously called the National Association for Remedial/Developmental Education in Postsecondary Education (NAR/DSPE) (Boylan

& Bonham, 2007). 1984 was also the year the U.S. Department of Education recognized developmental education as a subject that warranted additional research.

Boylan and Bonham (2007) further discuss the advance of developmental education by noting in 1985 the National Center for Developmental Education contributed to the research and literature of the field by conducting a national study of exemplary programs and practices in developmental education. This study resulted in the publication of a directory of exemplary developmental education programs. The study also afforded the sponsorship of a national conference on exemplary practices in developmental education held in Atlanta, Georgia in 1986. The field of study was further justified with the creation of the first doctoral program in developmental education at Grambling State University in Grambling, Louisiana. The 1980s presented recognition and opportunities for the growing study of developmental education.

The 1990s brought support from corporations to endorse research towards developmental education. The Exxon Education Foundation and the National Center for Developmental Education collaborated to conduct the first national study on developmental education. "Using transcript analysis, the study not only gathered descriptive information on the state of the art in the field of developmental education but also identified relationships between methods, courses, services, and organizational structures and student outcomes" (Boylan & Bonham, 2007, p. 1).

The American Council of Developmental Education Association also added to the body of knowledge in developmental education. Boylan and Bonham (2007) noted

the organization recognized those who have made outstanding contributions to the field as Fellows of the American Council of Developmental Education Associations. This organization bestows the highest honor for professionals in the field.

In 2011, developmental education is continuously a major issue for community colleges. Today, almost all community colleges offer developmental education courses, most in multiple levels (McCabe, 2000). "Nationally, 62 percent of remedial education students are deficient in mathematics, compared with 37.7 percent in reading and 55.6 percent in writing" (McCabe, 2000, p. 41). These figures indicate developmental education is an issue that requires continuous research locally and nationally.

Purpose of developmental education. The purpose of developmental education is to categorize the services offered to students under a broad range of courses. As a result of developmental education services were created and administered in an effort to assist and retain students and ensure they complete their higher education goals. Community colleges offer "open access" education which allows for a variety of student proficiencies in developmental subjects such as math. Boylan and Bonham (2007) further noted that developmental education efforts also included a variety of courses that teach material not typically offered in high school but frequently necessary for success in college (p. 2).

Services for underprepared students must fully use the knowledge gained from successful remedial education programs. McCabe (2000) refers to additional characteristics to look for:

- Research has provided substantial insight into how underprepared students learn.
- Exemplary remedial education programs should serve as models.
- Many community colleges ignore available knowledge and continue to deliver services in under supported, traditional arrangements.
- Doing less than our best is unacceptable (2000, p. 52)

To date, there is not one correct way to manage developmental education but data, research, and recommendations to assist along the way. Bailey (2009) makes the following recommendations regarding developmental education:

- Rethink assessment, focusing on understanding what students need in order to be successful in college rather than simply concentrating on placement within the sequence of a curriculum.
- Abandon the dichotomy between developmental and college-ready students for a wide range of students above and below current developmental cutoff scores by opening college-level courses to more students and by incorporating academic support assistance into college-level courses.
- For those students whose skills are so weak that they could not be successful even in augmented college-level courses, especially work to minimize the time necessary to prepare students for entry into those courses. (2009, p. 3)

Challenges facing developmental education. There are a variety of challenges that developmental education must face. There is a need to increase the conversations regarding developmental education within the legislature. It is imperative that we influence those who make decisions for education within our states with the facts regarding education. Educators must enforce the importance of developmental education within our community colleges with legislature. Instead of conversations on who is to address the needs of developmental students, the discussion should be about how developmental education is going to be funded and supported. "If legislators talked about developmental education they usually talked about eliminating remedial courses or relegating them to the community colleges" (Boylan & Bonham, 2007, p. 2). "Relegating," as Boylan and Bonham (2007) noted, should include financial support from the state to address the growing needs of developmental educators within the state.

A second challenge is the need for national organizations to support and promote the field of developmental education. Developmental education has been in existence for over 30 years, yet the organizations are fairly new. In fact, a majority of the trained professionals in the growing fields are newly trained professionals in the field as well. For example, at one time there was only one professional organization in the field to support ideas of developmental education, now there are more.

According to Hunter Boylan, Director of the National Center of Developmental Education at Appalachian State University, in the article "30 Years of Developmental Education: A Retrospective" (2007), an organization for developmental education was

not created until the late 1970s. Until that period, an organization did not exist to support the professional development and teaching and learning needs of developmental education. "The legitimacy of the field was not established until Grambling State University (La) started the nation's first doctoral degree in developmental education in 1985" (p. 3). The same journal discussed the creation of the Technology Institute for Developmental Educators (TIDE) at Texas State University in San Marcos, Texas to train participants in a range of developmental education technology applications.

National Challenges. Nationally, the concern is that students are not prepared for the workforce. There are few unskilled jobs left, and the majority of new jobs require a high school diploma and some postsecondary education (Roueche & Roueche, 1999). With these expectations increasing, students will return to college to increase their workforce skills. Community colleges should prepare for a surge in enrollment and developmental education needs. Proper training and development is needed for our ever-changing demographics.

> Major changes in U.S. demographics are occurring at the same time as our greatest need for an educated citizenry. If trends continue more young people than ever before will reach adulthood without the skills and knowledge they need to be gainfully employed. (Roueche & Roueche, 1999, p. 3)

The demographic changes that are occurring in our country are affecting community colleges. Roueche and Roueche (1999) stressed that the national population is aging, living longer, working longer, and threatening our soon to be unstable social

security system. Nationwide, community colleges are vital in providing training, development, or remedial education to our changing population.

McCabe (2000) noted a national guide should be instituted to assist community colleges in developing appropriate and effective remedial education programs:

- It is essential for our nation's future that a higher percentage of young adults gain the skills necessary for employment. Too many people are being lost.
- Most programs for seriously deficient students are unsuccessful and need a full revision.
- Business and industry representatives should be involved in developing the guide. A high percentage of successful remedial education students go into occupational programs or into the workplace. Skills needed to begin standard college work and those needed for information-age job entry are similar.
- Mathematics is a major hurdle for remedial education students. Goals in this discipline require careful review (p. 54)

Texas Best Practices. Hunter Boylan (2002) conducted research based best practices in developmental education in the Lone Star State (Texas). His published findings noted that developmental education is a priority, although not yet a high priority, in most Texas public community colleges. The idea of developmental education, formerly remediation, has been in existence for over thirty years, yet it is still not a main concern to every institution in Texas. The Coordinating Board (TCB) reports that The Texas Success Initiative has produced changes in developmental education, but

the changes have not been dramatic. The Texas Coordinating Board also noted attempts within Texas to decrease developmental education.

> In 1987, the Texas Academic Skills Program (TASP) was created. That initiative created a statewide examination required of most new college students mandated continuous developmental education prior to beginning college-level course work, and included passing the exam as a condition of continued enrollment. In 2003, TASP was replaced by the Texas Success Initiative (TSI). The Texas Success Initiative moves much of the responsibility for ensuring that students are qualified to do college level work to the institutions. While an initial assessment examination is still required, institutions are given much greater flexibility in assessing the preparedness of their students, and students are given greater flexibility in addressing their academic deficiencies. (TCB, 2004, p. 1)

Examples of strategies to consider are to incorporate intrusive advising, mandate advising, strengthen assessment programs, provide learning communities, paired courses or supplemental instruction. A handful of colleges minimized mandatory advising and gave students flexibility in choosing when they will address scholastic needs. This may not be a suitable technique as some students may not be aware of the value in advising as first-year college students and will need that guidance from an advisor.

In most institutions, assessment programs are stronger than advising and placement programs and should be utilized to meet the needs of developmental education students. The literature reflects the developmental education movement in

Texas appears to be sluggish to implement innovative teaching techniques such as learning communities, paired courses, supplemental instruction and others (Texas Coordinating Board, 2005).

Potential Strategies of Success

Community colleges that develop strategies to lead their developmental education students to successfully passing their courses are attacking the issue before it becomes a problem on their campus. An example of a strategy that is working at Montgomery County Community College (PA) is the implementation of a learning-assistance lab.

> The institution's learning-assistance lab has long offered general tutoring sessions for students taking remedial mathematics. The new program, in contrast, has tutors behave more like teaching assistants—attending classes and holding weekly help sessions designed around that specific course. The tutors are students or former students who have recently passed developmental-mathematics courses, along with some higher level math as well. (Blum, 2007, p. 2)

Cleveland State Community College (TN) created an "emporium model" popularized by the National Center for Academic Transformation. Instead of attending lectures in basic math, elementary algebra, and intermediate algebra, remedial students come to a large computer lab where they solve math problems and, when they need help, work with on-site faculty members and tutors. "Courses are arranged in weekly

modules with accompanying quizzes that can be retaken until students are ready for the next step" (Carey, 2009, p. 2). A strategy like this is likely to reduce remediation and increase retention. Statistically the approach has been successful for Cleveland State Community College and may serve as a guide for other community colleges.

Carey (2009) also noted that the percentage of remedial students earning at least a C in the three math courses jumped from 55% to 72% (pg. 2). The program has been so successful that the college is considering revamping the mathematics department. Other colleges are now considering implementing this project within their developmental education programs while researching additional programs that may benefit the developmental needs of their college.

Orientation. Additional programs that may benefit colleges exploring opportunities to strengthen their developmental education programs are implementing mandatory orientation and assessment for all incoming students. There is extensive literature that agrees with the benefits of mandatory orientation, assessment, and placement. Shuetz (2008) notes the following with reference to orientation:

> Arguably, orientation activities welcome students to campus, introduce them to the kinds of educational opportunities available, resolve basic uncertainties about how to get started, suggest how to negotiate campus environments, and describe how to engage more fully in the college experience over time. Although some of this kind of information is procedural, other vital elements are not. (pp. 25-26)

Roueche and Roueche (1999) suggest that student orientation should be a requirement, pointing out that universities are far better at instilling this rule than community colleges. Research has demonstrated that those who participate in new student orientations are more likely to be retained in community college than those who do not receive orientation (Boylan & Saxon, 2002). Jenkins (2007) notes students are successful when student success services are synchronized with programs such as advising, orientation, or early alert programs throughout the campus.

Orientation would serve as an introduction to the college and would provide the student with an opportunity to be introduced to departments within the college that are vital to his or her success. Orientations to the college can vary in detail. Orientation for new students provides a formal greeting and welcome for students new to higher education. Roueche and Roueche (1999) suggest students can feel misplaced in the institution that is characterized as impersonal or not socially inviting. A well-planned orientation can familiarize the student with the culture and climate of the campus.

Some orientations last a few hours where others take place over a weekend or longer. Overall, the most important aspect of orientation includes a clear introduction to the resources that will aid the student such as a tutoring lab or the office to receive counseling or mentoring services. Roueche and Roueche (1999) suggest that students be matched with qualified mentors to assist in explaining results of assessment exams and the purpose of developmental courses. Regarding student services success, Roueche and Roueche (1997) also noted that:

> During orientation, students are provided with mentors-teachers and experienced students-who stay in contact with the student and regularly discuss questions and problems. The students are required to participate in collaborative activities, both extracurricular and academic, that strengthen their relationships with peers, and they are required to visit college units that can help with such services as applying for financial aid and finding affordable childcare facilities. Some colleges report that better student evaluations and improved GPAs are two outcomes of enrolling students in cohort groups (groups that take all classes together for the first semester or quarter, follow "study buddy" system, and participate in extracurricular activities that require spending time together in pursuit of an assignment or social event) and that these outcomes have made the time and complexity of the effort required during the registration process worthwhile. (p. 2)

For the students attending college for the first time, orientation and proper advising can be the catalyst to a successful college career. "Many community college students face serious barriers to success in college, such as family and work responsibilities and deficient academic preparation. Indeed, it is precisely students such as these, who may not have access to baccalaureate institutions, whom community colleges seek to serve" (Bettinger & Long, 2004, p. 10).

Assessment. Compulsory assessment and placement is cited as best-practice recommendations for exemplary programs (Roueche & Roueche, 1999). The authors

noted the following regarding assessment and placement:

> Information from colleges that make assessment and placement mandatory, together with data reporting the performance of all students taking remedial work, suggests that remediation correlates with improved performance over the rest of the college experience. (1999, p. 47)

Developmental course success rates were positively linked with mandatory placement in both 2- and 4-year schools. These writers construe these findings as positive support for both mandatory assessment and placement. They contend that, under voluntary placement, the academically weakest students may not take the remedial courses at all and will not obtain the assistance that they need.

The Community College Research Center (2007) documented mandatory course placement after initial assessment has been somewhat more controversial with respect to outcome data. “Many students whose test scores suggest that they need some academic help to prepare them for college-level work do not end up enrolling in developmental education classes” (CCRC, 2008, p. 2). Not every state mandates assessment tests as a tool to predict college placement. “California being the most prominent, students can enroll in college-level courses even if their scores on an assessment test suggest that they are not adequately prepared, so that enrollment in remediation effectively becomes voluntary” (CCRC, 2008, p. 2).

To contest the impact on student retention that may accompany mandatory course placement, McCabe (2000) informs colleges of the importance to encourage

students and increase motivation for college into placement in remedial coursework. McCabe notes that many students convey that they do not comprehend why they are required to complete remedial coursework. A thorough explanation of the benefits of assessment and strategic follow up will assist students see the value in enrolling in developmental courses.

The Community College Research Center (2008) has further researched the impact of educational assessments for students taking into consideration the financial costs and stigmas associated with developmental education courses. The center (2008) notes:

> Developmental education assessments are in reality "high stakes" tests. Failing such tests often leads to enrollment in remediation with attendant costs and delayed progress for students. Yet those services have dubious benefits, at least in the way that developmental education is currently carried out. But despite the importance of the test outcomes, there is no national consensus about what level of skills is needed to be "college ready" or how to assess that level. (p. 2)

McCabe (2000) made the following recommendations for assessment and evaluation:

- If the college does not know a student is deficient, it cannot provide an appropriate program.
- It is unfair to students and undermines program quality if students are allowed to enroll in courses for which they are underprepared and have little prospect of success.

- Few students who are academically deficient and fail to enroll in remedial education are academically successful. (p. 50)

The Developmental Student

Students today are more diverse and involved in more non-academic pursuits then students were when developmental education began over 30 years ago. "We know that many community college students confront work and family challenges that complicate their education" (Bailey, et al, 2005, p. 10). Additionally, Bailey et al, (2005) added that, "community college students face severe obstruction to their academic achievements in college, such as family and work responsibilities and deficient academic preparation. Indeed, it is precisely students such as these, who may not have access to baccalaureate institutions, whom community colleges seek to serve" (p. 14).

Today's developmental education students come from all races, genders, socioeconomic statuses, and ages. Robert McCabe's (2000) research found:

> 54% of remedial education students are under 24 years of age, 24% are between the ages of 25 and 34, and 17% are over 35 years of age. Female enrollment slightly exceeds male enrollment [see figure 1]. 60% are white non-Hispanic, 23 % are African American, and 12% are Hispanic. 54% have an annual family income of less than $20,000. (Bailey, 2005, p. 5)

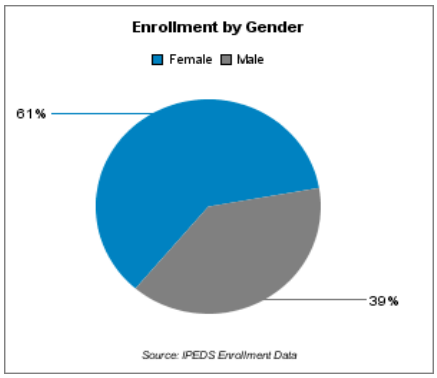


Figure 1. Enrollment by Gender, Source: (AACC, 2010b)

Today, developmental education students juggle the challenges of higher education, employment, family issues, and families of their own. Developmental education students brave the obstacles within their homes, their professions, and the hurdle of acquiring the necessary skills to advance to college level courses, meaning that in the classroom they will need more consideration. Courses offered to developmental education students should fit their social and academic needs as well. As educators we should provide and create an environment conducive to success.

Engaging and Retaining the Developmental Education Student

Engagement. Student engagement within community colleges can be effective for developmental education students as well as non-developmental students enrolled in college for the first time. The college experience is heightened by the connection students feel to the institution.

> The first days and weeks of the college experience are foundational: expectations meet campus realities, attitudes fostering or hindering academic success are reinforced or newly created, and choices are made about whether and how to

> engage in the college experience. Students are more open to change when they first arrive on campus, yet most institutions squander this fleeting opportunity to truly engage beginning students. (Schuetz & Barr, 2008, p. 110)

Schuetz and Barr (2008) shared the following regarding engagement of underprepared students:

> Underprepared students have been a significant presence in community colleges for decades. The growing size of this student population and the urgent reality of workforce accountability and other demands that did not exist forty years ago are pushing colleges to find more effective ways to support success for such students. (p. 113)

Retention of Developmental Education Students. Retention of developmental education students is vital to the success of the student and the college that they attend. Community colleges, like glue, have to pull two entities together. We have to create ways to draw on the things learned or not learned while the student was in the K-12 system. Developmental education, although a hurdle for some, can be the answer to the problem of remediation. "There are students taking these courses three, four, five times before they can pass them, and many who drop out, give up before they do," says Barbara S. Bonham, consultant to colleges on remedial education (Blum, 2007, p. 2). Initiatives such as Achieving the Dream (AtD) diligently attempt to increase degree completion and transfer rates for students.

Retention of developmental education students, minority students, and the like are the key interests of AtD. For a variety of reasons, developmental students have low completion rates.

> Achieving the Dream colleges have also found that students who fail to complete their first developmental education courses usually do not return the following semester; nor do they complete their other requirements for continuing in college. Their frustration with their lack of progress and the financial burden of having to retake courses contribute to low rates of retention and completion. (Biswas, 2007, p. 1)

Departmental Practices: Hiring Faculty and Maintaining Departments

Developmental education is charged with the challenge of hiring appropriate staff to teach their students. "In practice, however, discipline-area instructors may decline developmental teaching assignments, and the instruction of remedial courses may be left to part-time, adjunct faculty who may not also be teaching college-level courses" (CCRC, 2002, p. 2).

More recently, colleges have hired part-time instructors or adjuncts to teach over half of their courses. The reason for this is that part-time faculty save the college money whereas hiring full-time faculty to teach those classes would cost the college more money. Some colleges and universities depend on part-time instructors as a source of low-cost labor but also recognize that they provide a valuable service because many of

them have advanced degrees and life experiences that can enhance the institutions' offerings (Eney & Davidson, 2006).

"Considering the historical background of the use of part-time faculty in developmental education, it is essential to begin to make changes in the way colleges and universities select part-time instructors and how they treat them once they are hired" (Eney & Davidson, 2006, p. 3). If a college depends heavily on adjunct faculty they should make sure they have and can retain the best part-time instructors. Eney and Davidson also made the following suggestions regarding part-time faculty:

- Employ individuals with appropriate credentials, personalities, and beliefs.
- Provide adequate compensation.
- Provide part-time instructors with necessary services.
- Involve part-time instructors in institutional processes.
- Establish practical professional development activities and resources.
- Establish a faculty-to-faculty mentoring program for new hires.
- Develop a goal-setting and evaluation plan.

Developmental students require lectures from instructors that can contribute more to them in the classroom than life experiences. They require academically experienced, patient full time instructors. Despite the financial costs, 2-year institutions should invest in full time faculty to teach their developmental students especially if their classrooms are larger due to soaring enrollments.

Developmental courses provide students with the academic enrichment that they lack. "Developmental courses are resource-intensive. They have to be kept small, since these students need personal attention" (Dad, 2009, p. 1). To fully take advantage of the opportunity for remediation in a particular subject developmental education courses should limit their class sizes. Students that place in developmental courses may be reluctant to speak up or thrive in large classrooms. Perhaps keeping developmental education classrooms small will provide students with the opportunities to develop the skills needed to advance to academic courses.

The Community College Research Center (2002) agrees with revamping classroom strategies to better suit the needs of their students in the classroom. They stated that

> Since the main purpose of remedial education is to prepare students for college level academic demands, the skills and content taught in developmental classrooms should be related to those that students would later encounter in their subject matter classrooms. (p. 1)

McCabe (2000) notes majority of institutions fall short to utilizing existing studies concerning developmental education. "In recent years, some exciting and effective remedial programs have been developed. "Nevertheless, the information concerning effective practices has been largely ignored" (p. 44). Two-year institutions would benefit from utilizing any previous research on developmental education to strengthen their programs.

Centralized departments. Centralized departments may disentangle the issues that arise from the discussion regarding the type of subject matter and content that is taught in the classroom. A centralized department has the potential to minimize the number of adjuncts used while properly training the ones that are being utilized. Ms. Anne Arboreli, Dean of Developmental Education at Lone Star College CyFair (Texas), shared that her department is centralized to only manage the needs of developmental students. As the Dean, the department is committed to hiring instructors "only focused in the developmental needs of their students" (personal communication, March 8, 2010). She also noted the key advantage for a centralized department is the one-on-one training that they can provide their instructors which results in an increased quality of teaching for the students. Administrators that revamp their departments to include centralized departments will provide developmental students with the most qualified instructors with specialized training.

The Community College Research Center (2002) made the following suggestions regarding centralized developmental education departments:

1. Developmental curricula should be aligned with content and skills found in college-level courses.
2. Individualized attention and supplementary tutoring are important sources of support for academically under-prepared students. Colleges that mainstream developmental education should ensure that appropriate support services are available. This may require setting up the early-warning system.

3. Professional development, with appropriate incentives for participation, would help improve teaching ability and motivation in centralized developmental education.
4. Allow students to participate in college activities that are related to their majors and professions to which they aspire.
5. Efforts should be made by academic department and college administrators to integrate developmental education with the rest of the college program. (p. 3)

McCabe (2000) documented the priority community colleges should make towards developmental education:

> Institutional commitment to underprepared students is of greatest importance. Successful remediation occurs in direct proportion to priority given to the program by the college. Most importantly is caring staff who believe in the student in the importance of their work. Presidential leadership, in word and deed, is critical to success. (p. 49)

Organizational Membership

Community colleges across the nation are the leading catalyst for educational access, student development, and success. Colleges that maintain a strong network of resources and best practices can provide their students with leading research to fit their student success needs. Colleges that strive to improve their developmental education programs would benefit from partnering through affiliation and membership in organizations such as Achieving the Dream (AtD), National Institute of Staff and

Organizational Development (NISOD), Community College Survey of Student Engagement (CCSSE), Entering Student Success Institute (ESSI) and the Survey of Entering Student Engagement (SENSE).

Achieving the dream (AtD). Achieving the Dream: Community Colleges Count (AtD) is a national initiative to help more community college students succeed (earn degrees, earn certificates, or transfer to other institutions to continue their studies). The initiative is particularly concerned about student groups that have faced the most significant barriers to success, including low-income students and students of color. Achieving the Dream focuses colleges and others on understanding and making better use of data. It acts on multiple fronts, including efforts at community colleges, research, public engagement, and public policy. Achieving the Dream is funded by the Lumina Foundation for Education and 18 other partner foundations (Biswas, September 2007, p. ii). Community colleges can benefit by participating in this initiative as it focuses on students facing barriers that may have a significant impact on their success as students at their institution.

National institute of staff and organizational development (NISOD). The National Institute of Staff and Organizational Development (NISOD) is an organization founded to support the professional and academic needs of administrators, faculty and staff in higher education. Founded by Drs. John and Suanne Roueche, the organization set out to be the change agent in community college leadership.

NISOD provides academic and research based best practices in leadership across the country and internationally. The membership-based association provides an annual conference in Austin, Texas, frequent abstracts filled with student success testimonies, webinars, and educational updates through social media. NISOD, supported by the educational practice from the nationally recognized Community College Leadership Program at The University of Texas at Austin, is a vehicle for administrative leadership in higher education. Through membership colleges can profit from innovative techniques and share their own best practices and successful outcomes in developmental education nationally and internationally.

Community college survey of student engagement(CCSSE). The Community College Survey of Student Engagement (CCSSE) was founded in 2001 at The University of Texas at Austin as a project for the Community College Leadership Doctoral Program and provides evaluation and enhancement of student learning, retention, and performance.

> To respond effectively to these challenges, community and technical colleges need assessment tools appropriate to their unique missions and the characteristics of their diverse student populations. The Community College Survey of Student Engagement *(CCSSE)* is meeting that need. (CCSSE, 2010a)

Colleges that submit their institutions to the assessment process and survey provided by this organization will benefit by accurate assessment of the needs of the students and possible organizational quandaries that may need to be modified.

CCSSE produced a survey instrument called *The Community College Student Report,* which provides student engagement data, a gauge at learning by students and a better understanding of organizational interaction with students. *The Community College Student Report* is a versatile, research-based tool appropriate for multiple uses. This tool can be used as the following:

1. Benchmarking instrument — establishing national norms on educational practice and performance by community and technical colleges.

2. Diagnostic tool — identifying areas in which a college can enhance students' educational experiences.

3. Monitoring device — documenting and improving institutional effectiveness over time (CCSSE, 2010b).

Entering student success institute (ESSI). The Center for Community College Student Engagement with collaboration from Achieving the Dream, and the Community College Leadership Program will host the fourth institute of ESSI in New Mexico in 2011(ESSI, 2010a). The institute can train community college administrative staff to learn about student record, related statistical review, or goals for achievement. For full effectiveness of the institute, ESSI recommends the following persons attend:

- President
- Chief Academic Officer
- Chief Student Services Officer
- Faculty Leader
- Developmental Education Faculty Leader
- First Year Experience/Entering Student Experience Leader

- Director of Institutional Research
- Achieving the Dream Core Team or Data Team Leader, if applicable (ESSI, 2010b).

Survey of entering student engagement (SENSE). The Survey of Entering Student Engagement (*SENSE*) helps community and technical colleges focus on the "front door" of the college experience (SENSE, 2010). SENSE assembles statistical facts to support the student success needs of entering students into the college and aims at improving their experiences. Colleges that align themselves with this organization obtain key input on the experiences of their students when they begin college, their engagement levels while they are enrolled there.

Overall, retaining and engaging developmental education students will take a team effort. Two-year institutions can no longer afford to not budget annually for organizational memberships. Organizational memberships benefit everyone. The community college, its faculty and staff, and sharing of best practices will be key areas of focus to develop strong developmental educations programs locally, nationally and internationally.

Chapter Three: Methodology and Procedures

Introduction

Community colleges are the gateway to higher education for many students who would otherwise have limited access to college (Bailey et al., 2005). Transitioning students through the essential levels of developmental education courses to college level courses has become an issue. Administering placement exams to incoming college students assist community colleges determine if developmental courses are needed. Students can be placed in developmental mathematics, developmental reading, or developmental writing courses.

It is imperative that community colleges create better methods to retain incoming students who place into developmental courses. Colleges that identify and measure the levels of engagement of their students can better preserve those students. If students are not retained they are more likely to delay college enrollment, attend college part-time, or have gaps in college enrollment.

Purpose of the Study

The purpose of this chapter is to use quantitative techniques to identify levels of engagement of developmental students versus non-developmental students within 2-year institutions. The researcher also wants to identify institutional strategies or academic support initiatives that assist students enrolled in developmental education courses within community colleges. In addition, the researcher will examine the educational experiences of developmental students in 2-year institutions. The *Survey of Entering*

Student Engagement (SENSE) was the source of data for this study. This chapter describes the research methodology that was used to carry out this study. The chapter includes the purpose of the study, research questions, methodology, research design, description of sample, procedures and data collection, instrument development, instrument validity, procedure for obtaining informed consent for agenda, SENSE research protocol, data analysis, and summary.

Research Design

Results from this quantitative study will add knowledge to the field of developmental education by preparing administrators and faculty with research to support their efforts to educate students within their college. For the quantitative analysis, sample surveys were utilized from the Survey of Entering Student Engagement (SENSE), which was conducted during the fall 2009 semester at a suburban community college system in Texas. For purposes of this study, the following two questions were addressed:

Research Questions

1. Are there significant differences in the engagement levels among first year developmental education students versus first year non-developmental college students within 2-year institutions?

2. What institutional practices or academic support initiatives support developmental students' engagement in 2-year institutions?

Methodology

Survey research was used to collect and identify the strategies that assisted students persist through developmental education courses.

The purpose of this chapter is to use quantitative techniques to identify strategies that assist students enrolled in developmental education courses. "A quantitative approach is one in which the investigator primarily used postpositivist claims for developing knowledge, employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data" (Creswell, 2003, p. 18). This used a research design to determine if there are significant differences in the engagement levels of entering community college students enrolled in developmental courses. Sydenstricker (2007) notes that statistical tests (regressions, t-tests, chi square, etc) are "strong in internal validity and can parallel other non-equivalent designs in terms of validity threats, interpretation of results might be difficult" (para. 17). With that in mind, the use of t-tests will enable the researcher to analyze the significant experiences of students enrolled in developmental courses versus students not enrolled in developmental education courses.

The data collected is from the Survey of Entering Student Engagement (SENSE). The primary independent variable, students, is categorical. The dependent variable, student engagement, is continuous. The researcher studied variables that included the level of engagement, and passing or failing developmental courses.

Description of the sample. The Survey of Entering Student Engagement (SENSE) was administered to students at 120 member community colleges during the fourth and fifth week of the fall 2009 semester. This survey yielded over 50,327 surveys from entering students. Fall 2009 was the first national administration of the survey.

The survey was administered in classes randomly selected from the population of all first college-level English, first college-level math, and developmental education courses (excluding ESL courses). Colleges chose to include zero, one, or two of the four 2009 special-focus modules in their surveys. The 2009 special-focus modules were commitment and support, Engagement through Technology, Financial Assistance, and Student success Courses. In all, 75 colleges administered special-focus modules (SENSE, 2010).

SENSE sampling procedures are at the classroom level. Full-time students are more likely to be sampled. SENSE results are weighted based on the most recent publically available IPEDS data (Sense, 2010).

Procedures and data collection. The 2009 Survey of Entering Student Engagement was collected through the use of paper surveys administered in-class during the 4th and 5th weeks of the fall academic term by survey administrators. Students respond to the survey in class, and member colleges receive survey reports including data and analysis they can use to improve their programs and services for entering students (SENSE, 2010).

Instrument development. Researchers from The Community College Survey of Student Engagement (CCSSE) produced the SENSE instrument. Consultations with national experts in the field community and technical colleges assisted with creation of this instrument (SENSE, 2010). The instrument contains 38 questions regarding barriers that some entering college students may face. There is particular focus on questions regarding student success, development courses, and entering student engagement concerns.

Instrument validity. The SENSE instrument has been previously validated through CCSSE's large-scale validation research study (McClenney & Marti, 2006) and by the National Survey of Student Engagement (NSSE) administered to 4-year colleges and universities in the United States (Kuh, 2003). Questions on the survey associate with issues revealed in retention literature that is significant when assessing persistence, engagement, and retention. These questions assessed areas such as:

1. Student effort
2. Student-faculty interaction
3. Services – support for learners
4. Active and collaborative learning (SENSE, 2010).

Procedure for Obtaining Informed Consent for SENSE

Presidents from the colleges participating in the SENSE survey signed membership and agreement forms when they registered their college online. Students in randomly selected classes were afforded with an oral description of the study given by

the survey administrator. Students were assured that participation was voluntary, were provided with explanations regarding student identification numbers, and any additional questions they had were addressed (SENSE, 2010).

SENSE research protocol. Registration for colleges to participate in the SENSE survey occurred online. The SENSE survey requires that signatures of the colleges President or CEO and completion of the Institutional Membership and Agreement Form. Each college was sent a procedure guide to their delegated contact person. Each college submitted an inventory of every credit course that met the sampling limitation. Analysts for SENSE completed random sampling, survey packets and all necessary materials that were mailed directly to the college contact.

With approval of the random sample consent from the instructor to administer the SENSE survey during class is obtained. The survey time lasts between 30 and 45 minutes. The survey administrator then thoroughly reads the script and notifies all partakers that their participation is voluntary. Once each survey is completed, the administrator collected the surveys, placed them in the envelope provided by SENSE and mailed to SENSE for analysis (SENSE, 2010).

Data Analysis

This study used an independent sample t-test to analyze the responses of students currently enrolled in developmental education courses versus students enrolled in non-developmental courses. Sample t-test assisted the researcher to answer questions one

and two. The following questions will answer question two regarding institutional practices and academic support initiatives from the 2009 SENSE Survey:

Question 11

The following statements are about this college's orientation for new students (mark all that apply).

- I took part in an online orientation prior to the beginning of classes.
- I attended an on-campus orientation prior to the beginning of classes.
- I enrolled in an orientation course as part of my course schedule during my first semester/quarter at this college.
- I was not aware of a college orientation.
- I was unable to participate in orientation due to scheduling or other issues.

Question 12

This set of items asks you about your earliest experiences *at this college*. To respond, please think about your experiences from the time of your decision to attend this college through the end of the first three weeks of your first semester/quarter (yes or no).

- Before I could register for classes I was required to take a placement exam (COMPASS, ASSET, ACCUPLACER, SAT, ACT, etc.) to assess my skills in reading, writing and/ or math.
- I was exempt from taking a placement test from this college.

Question 14

This college required me to enroll in classes indicated by my placement test during my first semester/quarter (yes or no).

Question 20

This section asks three questions about a variety of college services. Answer three questions for each service indicating (1) whether you knew about it, (2) how often you used it, and (3) how satisfied you were. To respond, please think about your experiences from the time of your decision to attend this college through the end of the first three weeks of your first semester/quarter.

- Academic advising/planning
- Career counseling
- Job placement assistance
- Face to face tutoring
- Online tutoring
- Writing, math, or other skill lab
- Financial assistance lab

- Computer lab
- Student organizations
- Transfer credit assistance
- Services to students with disabilities

Question 22
Thinking about your experiences from the time of your decision to attend this college through the end of the first three weeks of your first semester what has been your MAIN source of academic advising (help with academic goal-setting, planning, course recommendations, graduation requirements, etc.)? (Mark only one)

- Friends, family, or other students
- Computerized degree advisor system
- Instructors
- College staff (not instructors)
- College Web site
- Other college materials

Question 23
Was a specific person assigned to you so you could see him/her each time you needed information or assistance? (yes or no) (SENSE, 2010)

In this study, the researcher was interested in determining the levels of engagement and educational experiences of first year college students within 2-year institutions. The researcher used SPSS to analyze the data.

Chapter Summary

Results from the study of the levels of engagement and all academic support programs for first year college students will benefit 2-year colleges around the world. Administrators within 2-year institutions will have data to support the student success programs offered at their institutions. The quantitative method approach was suitable for this study because the available data was the result of a sound survey instrument and provided a good framework to answer each research question.

Chapter Four: Data Analysis and Findings

Introduction

The purpose of this study was to investigate the dissimilarities in engagement levels between developmental students and non-developmental students by employing the Survey of Entering Student Engagement (SENSE). The Survey of Entering Student Engagement (SENSE) was administered to students at 120 member community colleges during the fourth and fifth week of the fall 2009 semester. This survey yielded over 50,327 surveys from entering students. Fall 2009 was the first national administration of the survey. The survey was administered in classes randomly selected from the population of all first college-level English, first college-level math, and developmental education courses (excluding ESL courses). In all, 75 colleges administered special-focus modules (SENSE, 2010). For the purpose of this study survey results from Lone Star College System in Houston, Texas were analyzed.

The 2009 Survey of Entering Student Engagement was collected through the use of paper surveys administered in-class during the fourth and fifth weeks of the fall academic term by survey administrators. Students respond to the survey in class, and member colleges receive survey reports including data and analysis they can use to improve their programs and services for entering students (SENSE, 2010) at their college.

SENSE identifies six benchmarks of valuable procedures with entering students. *Early Connections* identifies a specific person the entering student connects with as a source of support at the college. This connection can prove vital to the persistence of the student. *High Expectations and Aspirations* notes nearly all students arrive at their community colleges intending to succeed and believing they have the motivation to do so. When entering students perceive clear, high expectations from college staff and faculty, they are more likely to understand what it takes to be successful and adopt behaviors that lead to achievement. *Clear Academic Plan and Pathway* says that students are more likely to persevere when they are advised on the courses to take and are assisted with their academic goals and plans to achieve them. *Effective Track to College Readiness* focuses on improvements in student success and academic procedures administratively. *Engaged Learning* fosters strong instructional approaches that engage students academically. *Academic and Social Support Network* is geared toward providing the student information on college services and social support to lead to student success. This practice strives to be intentional (SENSE, 2010).

Chapter four describes in detail the statistical methods described in chapter three and the findings from the statistical analysis for the two research questions. These findings will assist in framing the conclusions and recommendations for chapter five.

Analysis

As framework for the analysis of first time in college students the researcher used question six, "How many semesters/quarters have you been enrolled at this college." If the student answered A, this is my first semester/quarter, then the student is considered a first time in college student. An additional question used to screen developmental versus non-developmental students was question 17 on the SENSE survey. If the student responded to any of the items (developmental reading, writing, or math) that student was determined to be a developmental student. For the purposes of this research 2,345 students were analyzed. Any statistical significances have been labeled, divided by benchmark, and cross-campus compared by college.

Research question #1. *Are there significant differences in the engagement levels among first year developmental education students versus first year non-developmental college students within 2-year institutions?*

To answer question number one the independent variables, developmental students versus non-developmental students were identified using the screener questions listed above. SPSS was used to divide all students by college. College one equals Lone Star College Cyfair, college two equals Lone Star College Kingwood, college three equals Lone Star College Montgomery, college four equals Lone Star College North Harris, and college five equals Lone Star College Tomball. Frequency distributions were run for all students who identified themselves as developmental or non-

developmental. Independent sample t-tests were run for 2,231 students who identified themselves as developmental.

Engagement. To determine significant differences between developmental and non-developmental students independent sample t-tests were run for engagement variables under the SENSE benchmarks Early Connections, High Expectations and Aspirations, Clear Academic Plan and Pathway, Effective Track to College Readiness and Engaged Learning. From SPSS main menu choose ANALIZE, COMPARE MEANS, and INDEPENDENT SAMPLES T-TEST. For dependent variables all variables listed in the SENSE Codebook (see Appendix B) were used.

The final step was to determine if there was an actual difference that existed between the two independent variables. The findings were used to perform a cross-campus comparison for deeper analysis of the independent variables within the 2-year college system that comprises of five colleges.

Research question #2. *What institutional practices or academic support initiatives support developmental students' engagement in two-year institutions?*

To determine if any institutional practices or academic support initiatives support developmental students' engagement in 2-year institutions the researcher focused on the student answers to questions that asked specifically regarding practices performed within the two year institution. The researcher used SPSS software and analyzed the data using independent samples t-test. As dependent variables the following variables were used:

- Regclass When did you register for your courses for your first semester/quarter at this college?
- Onlorien I took part in an online orientation program prior to the beginning of classes.
- Oncorien I attended an on-campus orientation program prior to the beginning of classes.
- Csorien I enrolled in an orientation course as part of my course schedule during my first semester/quarter at this college.
- Reqptest Before I could register for classes I was required to take a placement test (COMPASS, ASSET, ACCUPLACER, SAT, ACT, etc.) to assess my skills in reading, writing, and/or math.
- Reqclass This college required me to enroll in classes indicated by my placement test scores during my first semester/quarter.
- Aaselmaj An advisor helped me to select a course of study, program, or major.
- Acadgoal An advisor helped me to set academic goals and to create a plan for achieving them.
- Crsadv An advisor helped me identify the courses I needed to take during my first semester/quarter.
- Oscomm A college staff member talked with me about my commitments outside of school (work, children, dependents, etc.) to help me figure out the number of courses to take.
- Actintro All instructors had activities to introduce students to one another.
- Resource All instructors clearly explained academic and student support services available at this college.
- Gradepol All instructors clearly explained course grading policies.
- Syllabi Instructors clearly explained course syllabi (syllabuses).
- Cstafnam At least one college staff member (other than an instructor) learned my name.
- Ostudnam At least one other student whom I did not previously know learned my name.
- Facnam At least one instructor learned my name.
- Stunam I learned the name of at least one other student in most of my classes.
- Supinstr Participate in supplemental instruction (extra class sessions with an instructor tutor, or experienced student).
- Facassn Discuss an assignment or grade with an instructor.
- Feedback Receive prompt written or oral feedback from instructors on your performance.
- Acadplng Academic advising/planning
- AcadpuseFrequency: Academic advising/planning
- CareerCareer Counseling
- Jobplace Job placement assistance

- Fftutor Face-to-face tutoring
- Oltutor Online tutoring
- Oltsat Satisfaction: Online tutoring

Tables

Table 1.

LSC Cyfair Statistics Early Connection

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Early Connections	Developmental	330	40.5	22.8	1.25
	NonDev	143	37.0	20.7	1.73
Felt Welcomed 1st visit	Developmental	342	3.92	.86	.046
	NonDev	142	3.86	.74	.062
College gave info about financial aid	Developmental	341	2.88	1.25	.068
	NonDev	142	2.94	1.19	.100
Staff helped determine qualification for financial aid	Developmental	339	2.45	1.18	.065
	NonDev	142	2.48	1.11	.094
Staff learned my name	Developmental	342	2.88	1.39	.075
	NonDev	142	2.73	1.28	.108
Assigned person for needed information	Developmental	335	1.84	.36	.020
	NonDev	140	1.94	.23	.020

Table 2.

LSC Cyfair Independent Samples Early Connections

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Early Connections (benchmark)	1.57	471	.11	3.49
Felt welcomed 1st visit	.78	483	.43	.06
College gave info about financial assistance	-.51	481	.60	-.06
Staff helped determine qualifications for financial aid	-.28	479	.77	-.03
Staff learned my name	1.11	482	.26	.15
Assigned specific person	-2.	473	.00*	-.09

At Lone Star College Cyfair non-developmental students are more likely to be assigned a specific person.

Table 3.

LSC Kingwood Statistics Early Connections

Group Statistics					
	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Early connections	Developmental	379	49.27	24.76	1.27
	NonDev	120	42.00	24.35	2.22
Felt Welcomed 1st visit	Developmental	392	3.81	.78	.04
	Non Dev	120	3.79	.79	.07
College gave info about	Developmental	389	3.15	1.21	.06
financial assistance	NonDev	120	2.93	1.22	.11
Staff helped determine	Developmental	384	2.84	1.19	.06
qualifications for financial aid	NonDev	120	2.58	1.12	.10
Staff Learned my name	Developmental	392	3.06	1.35	.06
	NonDev	120	2.94	1.34	.12
Assigned person for	Developmental	379	1.66	.47	.02
needed information	NonDev	119	1.86	.35	.03

Table 4.

LSC Kingwood Independent Samples Early Connections

Independent Samples Test Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff
Early Connections	2.81	497	.00*	7.27
Felt welcomed 1st visit	.23	510	.81	.02
College gave information about financial assistance	1.67	507	.09	.21
Staff helped determine qualifications for financial aid	2.11	502	.03*	.26
Staff learned my name	.81	510	.41	.11
Assigned specific person	-4.14	496	.00*	-.19

At Lone Star College Kingwood developmental students are more likely to report Early Connections and staff helped determine qualifications for financial aid. Non-developmental students are more likely to be assigned a specific person.

Table 5.

LSC Montgomery Statistics Early Connections

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Early Connections	Developmental	455	41.89	22.02	1.03
	Non Dev	180	38.80	22.75	1.69
Felt Welcomed 1st visit	Developmental	478	3.89	.80	.03
	Non Dev	183	3.77	.80	.05
College gave info about financial assistance	Developmental	476	3.16	1.17	.05
	Non Dev	183	3.03	1.12	.08
Staff helped determine qualifications about financial aid	Developmental	477	2.62	1.16	.05
	Non Dev	183	2.58	1.08	.08
Staff Learned my name	Developmental	477	2.81	1.32	.06
	Non Dev	183	2.67	1.31	.09
Assigned person for needed info	Developmental	464	1.88	.32	.01
	Non Dev	180	1.89	.30	.02

Table 6.

LSC Montgomery Independent Samples Early Connections

Independent Samples Test Development vs. Non-Developmental

	T	Df	Sig (2-tailed)	Mean Diff
Early Connections	1.57	633	.11	3.08
Welcomed 1st Visit	1.75	659	.08	.12
College gave information about financial assistance	1.25	657	.21	.12
Staff helped determine qualifications for financial aid	.37	658	.70	.03
Staff learned my name	1.21	658	.22	-.13
Assigned specific person	-.46	642	.64	-.01

At Lone Star College Montgomery there was no significance in the Early Connections benchmark.

Table 7.

LSC North Harris Statistics Early Connections

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Early connections	Developmental	524	52.44	26.30	1.149
	NonDev	127	47.86	27.03	2.39
Felt Welcomed 1st visit	Developmental	540	3.94	.80	.03
	NonDev	127	3.94	.88	.07
College gave info about financial assistance	Developmental	537	3.25	1.24	.05
	NonDev	125	3.06	1.26	.11
Staff helped determine qualifications for financial aid	Developmental	537	2.93	1.31	.05
	NonDev	124	2.77	1.12	.10
Staff learned my name	Developmental	538	3.14	1.38	.06
	NonDev	127	3.24	1.45	.12
Assigned person for needed info	Developmental	519	1.65	.47	.02
	NonDev	123	1.72	.45	.04

Table 8.

LSC North Harris Independent Samples Early Connections

Independent Samples Test Development vs. Non-Developmental

		Df	Sig (2-tailed)	Mean Diff
Early Connections	1.74	649	.08	4.57
Welcomed 1st Visit	.04	665	.96	.00
College gave information about financial assistance	1.47	660	.14	.18
Staff helped determine qualifications for financial aid	1.23	659	.21	.15
Staff learned my name	-.73	663	.46	-.10
Assigned specific person	-1.35	640	.17	-.06

At Lone Star College North Harris there was no significance in the Early Connections benchmark.

Table 9.

LSC Tomball Statistics Early Connections

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Early Connections	Developmental	418	44.99	25.71	1.25
	NonDev	162	36.26	22.18	1.74
Felt Welcomed 1st visit	Developmental	424	3.92	.76	.03
	NonDev	160	3.71	.75	.06
College gave info about financial assistance	Developmental	425	2.99	1.19	.05
	NonDev	159	2.92	1.13	.09
Staff helped determine qualifications for financial aid	Developmental	420	2.69	1.22	.06
	NonDev	158	2.58	.97	.07
Staff Learned my name	Developmental	425	2.94	1.35	.06
	NonDev	160	2.67	1.29	.10
Assigned person for needed info	Developmental	401	1.80	.40	.02
	NonDev	162	1.91	.28	.02

Table 10.

LSC Tomball Independent Samples Early Connections

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff
Early Connections	3.80	578	.00*	8.72
Welcomed 1st Visit	2.97	582	.00*	.21
College gave information about financial assistance	.60	582	.54	.06
Staff helped determine qualifications for financial aid	.97	576	.33	.10
Staff learned my name	2.15	583	.03*	.26
Assigned specific person	-3.40	561	.00*	-.11

At Lone Star College Tomball developmental students are more likely to report Early Connections, the very first time they came to this college they felt welcome and at least one college staff member (other than an instructor) learned their name. Non-developmental students are more likely to report they were assigned a specific person than developmental students.

Table 11.

LSC Cyfair Statistics High Expectations and Aspirations

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
High Expectations & Aspirations	Developmental	330	50.67	24.65	1.35
	NonDev	143	47.48	22.27	1.86
Instructors want me to succeed	Developmental	342	4.29	.67	.03
	NonDev	142	4.17	.67	.05
Motivation for success	Developmental	342	4.53	.68	.03
	NonDev	142	4.38	.69	.05
Prepared academically to succeed	Developmental	342	4.38	.79	.04
	NonDev	142	4.26	.76	.06
Turn in assignment late	Developmental	341	1.40	.64	.03
	NonDev	144	1.28	.480	.040
Not turn in assignment	Developmental	337	1.41	.698	.038
	NonDev	145	1.36	.573	.048
Come to class incomplete readings or assignments	Developmental	341	1.60	.748	.040
	NonDev	145	1.85	.828	.069
Skip Class	Developmental	342	1.33	.635	.034
	NonDev	145	1.34	.658	.055

Table 12.

LSC Cyfair Independent Samples High Expectations and Aspirations

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
High Expectations and Aspirations	1.32	471	.18	3.18
Instructors want me to succeed	1.78	482	.07	.12
Motivation for success	2.20	482	.02*	.15
Prepared academically to succeed	1.56	482	.11	.12
Turn in assignments late	2.07	483	.03*	.12
Not turn in an assignment	.77	480	.44	.05
Come to class incomplete readings and assignments	-3.30	484	.00*	-.25
Skip class	-.16	485	.87	-.01

At Lone Star College Cyfair developmental students are more likely to report having the motivation to do what it takes to succeed in college, turn in assignments late, and they come to class without completing readings or assignments.

Table 13.

LSC Kingwood Statistics High Expectations and Aspirations

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
High Expectations & Aspirations	Developmental	379	48.71	24.50	1.25
	NonDev	120	50.91	19.90	1.81
Instructors want me to succeed	Developmental	392	4.15	.76	.03
	NonDev	120	4.09	.69	.06
Motivation for success	Developmental	390	4.37	.76	.03
	NonDev	120	4.34	.69	.06
Prepared academically to succeed	Developmental	392	4.25	.79	.04
	NonDev	120	4.33	.67	.06
Turn in assignment late	Developmental	390	1.39	.63	.03
	NonDev	122	1.19	.41	.03
Not turn in assignment	Developmental	388	1.35	.66	.03
	NonDev	122	1.22	.52	.04
Come to class incomplete readings or assignments	Developmental	390	1.58	.75	.03
	NonDev	122	1.72	.80	.07
Skip Class	Developmental	390	1.35	.63	.03
	NonDev	122	1.25	.52	.04

Table 14.

LSC Kingwood High Expectations and Aspirations

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
High Expectations and Aspirations	-.89	497	.37	-2.02
Instructors want me to succeed	.72	510	.47	.05
Motivation for success	.41	508	.67	.03
Prepared academically to succeed	-.90	510	.36	-.07
Turn in assignments late	3.26	510	.00*	.19
Not turn in an assignment	1.92	508	.05	.12
Come to class incomplete readings and assignments	-1.75	510	.07	-.13
Skip class	1.45	510	.14	.09

At Lone Star College Kingwood developmental students are more likely to report that they turn in assignments late.

Table 15.

LSC Montgomery High Expectations and Aspirations

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
High Expectations & Aspirations	Developmental	455	47.07	26.48	1.24
	Non Dev	180	47.19	26.13	1.94
Instructors want me to succeed	Developmental	476	4.18	.70	.03
	Non Dev	183	4.10	.65	.04
Motivation for success	Developmental	477	4.39	.77	.03
	Non Dev	182	4.34	.75	.05
Prepared academically to succeed	Developmental	475	4.32	.76	.03
	Non Dev	182	4.37	.66	.04
Turn in assignment late	Developmental	477	1.46	.70	.03
	Non Dev	185	1.33	.65	.04
Not turn in assignment	Developmental	473	1.37	.65	.03
	Non Dev	183	1.33	.66	.04
Come to class incomplete readings or assignments	Developmental	475	1.70	.83	.03
	Non Dev	184	1.83	.87	.06
Skip Class	Developmental	477	1.36	.65	.03
	Non Dev	185	1.41	.70	.05

Table 16.

LSC Montgomery High Expectations and Aspirations

Independent Samples Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff`
High Expectations and Aspirations	-.05	633	.96	-.11
Instructors want me to succeed	1.36	657	.17	.08
Motivation for success	.87	657	.38	.05
Prepared academically to succeed	-.74	655	.45	-.04
Turn in assignments late	2.13	660	.03*	.12
Not turn in an assignment	.66	654	.50	.03
Come to class incomplete readings and assignments	-1.75	657	.07	-.12
Skip class	-.77	660	.43	-.04

At Lone Star College Montgomery developmental students are more likely to report that they turn in assignments late.

Table 17.

LSC North Harris High Expectations and Aspirations

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
High Expectations & Aspirations	Developmental	524	51.49	23.71	1.03
	NonDev	127	51.31	21.78	1.93
Instructors want me to succeed	Developmental	539	4.31	.68	.02
	NonDev	127	4.19	.80	.07
Motivation for success	Developmental	538	4.49	.69	.03
	NonDev	126	4.59	.59	.05
Prepared academically to succeed	Developmental	538	4.32	.78	.03
	NonDev	127	4.47	.68	.06
Turn in assignment late	Developmental	536	1.47	.65	.02
	NonDev	130	1.36	.67	.05
Not turn in assignment	Developmental	531	1.33	.64	.02
	NonDev	129	1.32	.62	.05
Come to class incomplete readings or assignments	Developmental	535	1.57	.77	.03
	NonDev	130	1.87	.93	.08
Skip Class	Developmental	537	1.26	.58	.02
	NonDev	130	1.27	.55	.04

Table 18.

LSC North Harris Independent Samples High Expectations and Aspirations

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
High Expectations and Aspirations	1.93	578	.05	3.93
Instructors want me to succeed	2.92	584	.00*	.18
Motivation for success	.96	584	.33	.06
Prepared academically to succeed	-.95	579	.33	-.06
Turn in assignments late	1.96	586	.05	.09
Not turn in an assignment	-.11	584	.91	-.06
Come to class incomplete readings and assignments	-3.48	586	.00*	-2.50
Skip class	-2.07	581	.03*	-.11

At Lone Star College North Harris developmental students are more likely to report their instructors want them to succeed. Non-developmental students are more likely to report they come to class with incomplete readings/assignments and they skip class.

Table 19.

LSC Tomball Statistics High Expectations and Aspirations

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
High Expectations & Aspirations	Developmental	418	51.73	21.70	1.06
	NonDev	162	47.80	22.79	1.79
Instructors want me to succeed	Developmental	426	4.31	.65	.03
	NonDev	160	4.13	.70	.05
Motivation for success	Developmental	426	4.38	.68	.03
	NonDev	160	4.31	.83	.06
Prepared academically to succeed	Developmental	422	4.24	.73	.03
	NonDev	159	4.31	.77	.06
Turn in assignment late	Developmental	423	1.32	.56	.02
	NonDev	165	1.22	.48	.03
Not turn in assignment	Developmental	421	1.27	.56	.02
	NonDev	165	1.28	.53	.04
Come to class incomplete readings or assignments	Developmental	423	1.62	.75	.03
	NonDev	165	1.87	.84	.06
Skip Class	Developmental	419	1.27	.56	.02
	NonDev	164	1.38	.65	.05

Table 20.

LSC Tomball Independent Samples High Expectations and Aspirations

Independent Samples Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff`
High Expectations and Aspirations	1.93	578	.05	3.93
Instructors want me to succeed	2.92	584	.00*	.18
Motivation for success	.96	584	.33	.06
Prepared academically to succeed	-.95	579	.33	-.06
Turn in assignments late	1.96	586	.05	.097
Not turn in an assignment	-.11	584	.91	-.06
Come to class incomplete readings and assignments	-3.48	586	.00*	-.25
Skip class	-2.07	581	.03*	-.11

At Lone Star College Tomball developmental students are more likely to report their instructors wanted to see them succeed. Non-developmental students are more likely to report they come to class with incomplete readings/assignments and skip class.

Table 21.

LSC Cyfair Statistics Academic Plan

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic Plan	Developmental	328	41.96	25.68	1.41
	NonDev	140	37.51	26.19	2.21
Met with advisor at convenient times	Developmental	338	3.45	1.10	.06
	NonDev	139	3.33	1.03	.08
Advisor helped select course of study/prg/major	Developmental	340	3.28	1.25	.06
	NonDev	142	3.20	1.21	.10
Advisor helped set acad goals and plan to achieve	Developmental	337	2.82	1.17	.06
	NonDev	141	2.65	1.16	.09
Advisor helped identify courses needed first semester	Developmental	339	3.55	1.22	.06
	NonDev	142	3.20	1.24	.10
Staff discussed commitments outside of school	Developmental	340	2.43	1.12	.06
	NonDev	142	2.39	1.03	.08

Table 22.

LSC Cyfair Independent Samples Academic Plan

Independent Samples Test Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff
Academic Plan	1.70	466	.08	4.54
Met with advisor at convenient times	1.08	475	.27	.11
Advisor helped select course of study/prg/major	.66	480	.50	.082
Advisor helped set acad goals and plan to achieve	1.52	476	.12	.18
Advisor helped identify courses needed first semester	2.80	479	.00*	.34
Staff discussed commitments outside of school	.31	480	.75	.03

At Lone Star College Cyfair developmental students are more likely to report an advisor helped identify the courses needed the first semester.

Table 23.

LSC Kingwood Statistics Academic Plan

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic Plan	Developmental	379	52.31	24.21	1.24
	NonDev	118	49.03	22.47	2.06
Met with advisor at convenient times	Developmental	390	3.58	1.06	.054
	NonDev	118	3.63	1.06	.098
Advisor helped select course of study/prg/major	Developmental	390	3.75	1.09	.055
	NonDev	119	3.66	1.07	.099
Advisor helped set acad goals and plan to achieve	Developmental	389	3.22	1.13	.058
	NonDev	120	3.09	1.09	.100
Advisor helped identify courses needed first semester	Developmental	391	3.99	1.03	.053
	NonDev	120	3.76	1.06	.097
Staff discussed commitments outside of school	Developmental	387	2.77	1.16	.059
	NonDev	120	2.67	1.11	.101

Table 24.

LSC Kingwood Independent Samples Academic Plan

Independent Samples Test Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff
Academic Plan	1.30	495	.19	3.27
Met with advisor at convenient times	-.42	506	.67	-.048
Advisor helped select course of study/prg/major	.84	507	.40	.09
Advisor helped set academic goals and plan to achieve	1.05	507	.29	.12
Advisor helped identify courses needed first semester	2.10	509	.03*	.22
Staff discussed commitments outside of school	.85	505	.39	.10

At Lone Star College Kingwood developmental students are more likely to report an advisor helped identify the courses needed the first semester.

Table 25.

LSC Montgomery Statistics Academic Plan

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic Plan	Developmental	2102	50.44	24.97	.54
	NonDev	717	47.06	24.65	.92
Met with advisor at convenient times	Developmental	2159	3.69	1.01	.02
	NonDev	724	3.66	.99	.03
Advisor helped select course of study/prg/major	Developmental	2166	3.61	1.17	.02
	NonDev	728	3.53	1.18	.04
Advisor helped set acad goals and plan to achieve	Developmental	2160	3.09	1.16	.02
	NonDev	730	2.96	1.15	.04
Advisor helped identify courses needed first semester	Developmental	2166	3.87	1.06	.02
	NonDev	731	3.64	1.14	.04
Staff discussed commitments outside of school	Developmental	2164	2.72	1.21	.02
	NonDev	729	2.64	1.12	.04

Table 26.

LSC Montgomery Independent Samples Academic Plan

Independent Samples Test Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff
Academic Plan	3.13	2817	.00*	3.37
Met with advisor at convenient times	.65	2881	.51	.02
Advisor helped select course of study/prg/major	1.60	2892	.10	.08
Advisor helped set acad goals and plan to achieve	2.78	2888	.00*	.13
Advisor helped id courses needed first semester	4.99	2895	.00*	.23
Staff discussed commitments outside of school	1.44	2891	.14	.07

At Lone Star College Montgomery developmental students are more likely to report statistical significance in Academic Plan, an advisor helped set academic goals and plan to achieve them and an advisor helped identify courses needed the first semester.

Table 27.

North Harris Statistics Academic Plan

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic Plan	Developmental	523	55.37	23.78	1.04
	NonDev	124	56.27	23.08	2.07
Met with advisor at convenient times	Developmental	532	3.82	.94	.04
	NonDev	126	3.84	.93	.08
Advisor helped select course of study/prg/major	Developmental	537	3.83	1.13	.04
	NonDev	126	3.96	1.09	.09
Advisor helped set acad goals and plan to achieve	Developmental	536	3.22	1.20	.05
	NonDev	126	3.34	1.26	.11
Advisor helped id courses needed first semester	Developmental	538	4.09	.96	.04
	NonDev	126	4.06	.96	.08
Staff discussed commitments outside of school	Developmental	537	2.89	1.31	.05
	NonDev	124	2.89	1.30	.11

Table 28.

LSC North Harris Independent Samples Academic Plan

Independent Samples Test Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff
Academic Plan	-.38	645	.70	-.90
Met with advisor at convenient times	-.19	656	.84	-.01
Advisor helped select course of study/prg/major	-1.16	661	.24	-.13
Advisor helped set academic goals and plan to achieve	-1.05	660	.31	-.12
Advisor helped identify courses needed first semester	.23	662	.81	.02
Staff discussed commitments outside of school	.00	659	.99	.00

At Lone Star College North Harris there was no significance in the Academic Plan benchmark for developmental or non-developmental students.

Table 29.

LSC Tomball Statistics Academic Plan

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic Plan	Developmental	418	51.30	24.60	1.20
	NonDev	157	46.84	22.24	1.77
Met with advisor at convenient times	Developmental	426	3.76	.97	.04
	NonDev	159	3.81	.910	.072
Advisor helped select course of study/prg/major	Developmental	425	3.64	1.12	.05
	NonDev	158	3.54	1.16	.09
Advisor helped set acad goals and plan to achieve	Developmental	424	3.18	1.12	.05
	NonDev	160	2.84	.99	.07
Advisor helped identified courses needed first semester	Developmental	425	3.87	1.02	.05
	NonDev	160	3.59	1.11	.08
Staff discussed commitments outside of school	Developmental	425	2.69	1.20	.05
	NonDev	160	2.56	1.05	.08

Table 30.

LSC Tomball Independent Samples Academic Plan

Independent Samples Test Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff`
Academic Plan	1.98	573	.04*	4.45
Met with advisor at convenient times	-.52	583	.59	-.04
Advisor helped select course of study/prg/major	.98	581	.32	.10
Advisor helped set academic goals and plan to achieve	3.30	582	.00*	.33
Advisor helped identified courses needed first semester	2.86	583	.00*	.27
Staff discussed commitments outside of school	1.28	583	.20	.13

At Lone Star College Tomball developmental students are more likely to report they have an Academic Plan and an advisor helped set academic goals and a plan to achieve them. Non- developmental students are more likely to report an advisor helped identify courses needed the first semester.

Table 31.

LSC Cyfair Statistics Effective Track to College Readiness

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Effective track to college readiness	Developmental	330	56.58	19.43	1.06
	NonDev	143	34.41	25.97	2.17
Before register required placement test	Developmental	343	1.05	.21	.01
	NonDev	142	1.25	.43	.03
I took a placement test	Developmental	337	1.04	.19	.01
	NonDev	140	1.14	.35	.03
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	Developmental	341	1.09	.288	.016
	NonDev	141	1.62	.486	.041
Within class or another experience at college I learned to improve study skills	Developmental	341	3.97	.974	.053
	NonDev	143	3.75	.876	.073
Within class or another experience I learned to understand my academic strengths /weakness	Developmental	341	3.86	.931	.050
	NonDev	143	3.64	.859	.072
Within class or another experience I learned skills and strategies to improve test taking ability	Developmental	341	3.63	1.036	.056
	NonDev	142	3.37	.978	.082

Table 32.

LSC Cyfair Independent Samples Effective Track to College Readiness

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Effective track to college readiness	10.24	471	.00*	22.17
Before register required placement test	-6.65	483	.00*	-.19
Took placement test	-4.15	475	.00*	-.10
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	-14.90	480	.00*	-.53
Within class or another experience at this college I learned to improve study skills	2.32	482	.02*	.21
Within class or another experience at this college I learned to understand my academic strengths /weakness	2.41	482	.01*	.21
Within class or another experience at this college I learned skills and strategies to improve test taking ability	2.62	481	.00*	.26

Lone Star College Cyfair developmental students are more likely to report Effective Track to College Readiness, within a class or another experience at this college they learned skills and strategies to improve study skills, within a class or another experience at this college they learned to understand their academic strengths and weaknesses, within a class or another experience at this college they learned skills to improve test taking ability. Non-developmental students are more likely to report before registering for classes they were required to take a placement test, took a placement test,

and the college required them to enroll in classes indicated by their placement test scores during their first semester.

Table 33.

LSC Kingwood Statistics Effective Track to College Readiness

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Effective track to college readiness	Developmental	379	55.13	19.37	.99
	NonDev	120	32.75	26.23	2.39
Before register required placement test	Developmental	388	1.07	.26	.01
	NonDev	120	1.23	.42	.03
Took placement test	Developmental	387	1.04	.19	.01
	NonDev	119	1.14	.35	.03
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	Developmental	389	1.07	.25	.01
	NonDev	118	1.67	.47	.04
Within class or another experience at college I learned to improve study skills	Developmental	390	3.89	.92	.04
	NonDev	122	3.66	.95	.08
Within class or another experience at the college I learned to understand my academic strengths /weakness	Developmental	390	3.81	.93	.04
	NonDev	122	3.63	.929	.084
Within class or another experience at the college I learned skills and strategies to improve test taking ability	Developmental	390	3.52	1.03	.05
	NonDev	122	3.40	.97	.08

Table 34.

LSC Kingwood Independent Samples Effective Track to College Readiness

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff
Effective track to college readiness	10.06	497	.00*	22.3
Before register required placement test	-4.91	506	.00*	-.15
Took placement test	-3.97	504	.00*	-.10
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	-17.70	505	.00*	-.59
Within class or another experience at this college I learned to improve study skills	2.38	510	.01*	.23
Within class or another experience at this college I learned to understand my academic strengths /weakness	1.87	510	.06	.18
Within class or another experience at this college I learned skills and strategies to improve test taking ability	1.09	510	.27	.11

Lone Star College Kingwood developmental students are more likely to report Effective Track to College Readiness and within class or another experience at this college they learned to improve their study skills. Non-developmental students are more likely to report before they registered they were required to take a placement test, took placement test and the college required them to enroll in classes indicated by their placement test scores during their first semester.

Table 35.

LSC Montgomery Statistics Effective Track to College Readiness

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Effective track to college readiness	Developmental	2107	56.52	20.05	.43
	NonDev	732	32.54	28.46	1.05
Before register required placement test	Developmental	2171	1.07	.25	.00
	NonDev	730	1.29	.45	.01
Took placement test	Developmental	2141	1.04	.20	.00
	NonDev	717	1.17	.37	.01
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	Developmental	2158	1.09	.28	.00
	NonDev	719	1.63	.48	.01
Within class or another experience at the college I learned to improve study skills	Developmental	2157	4.00	.91	.02
	NonDev	739	3.76	.948	.0
Within class or another experience at the college I learned to understand my academic strengths /weakness	Developmental	2158	3.90	.89	.01
	NonDev	739	3.65	.92	.03
Within class or another experience at the college I learned skills and strategies to improve test taking ability	Developmental	2155	3.62	1.03	.02
	NonDev	738	3.37	1.00	.03

Table 36.

LSC Montgomery Independent Samples Effective Track to College Readiness

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Effective track to college readiness	24.80	2837	.00*	23.97
Before register required placement test	-16.09	2899	.00*	-.22
Took placement test	-10.92	2856	.00*	-.12
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	-36.51	2875	.00*	-.54
Within class or another experience at this college I learned to improve study skills	6.12	2894	.00*	.24
Within class or another experience at this college I learned to understand my academic strengths /weakness	6.48	2895	.00*	.24
Within class or another experience at this college I learned skills and strategies to improve test taking ability	5.72	2891	.00*	.25

Lone Star College Montgomery developmental students are more likely to report Effective Track to College Readiness, within class or another experience at this college they learned to improve their study skills, within class or another experience at this college they learned to understand their academic strengths and weaknesses and within class or another experience at this college they learned skills and strategies to improve test taking ability. Non- developmental students are more likely to report before they

registered they were required to take a placement test, took placement test and the college required them to enroll in classes indicated by their placement test scores during their first semester.

Table 37.

LSC North Harris Effective Track to College Readiness

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Effective track to college readiness	Developmental	524	58.26	20.64	.90
	NonDev	127	42.41	27.44	2.43
Before register required placement test	Developmental	537	1.09	.28	.01
	NonDev	126	1.21	.40	.03
Took placement test	Developmental	527	1.05	.21	.00
	NonDev	123	1.18	.385	.035
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	Developmental	534	1.07	.25	.01
	NonDev	124	1.56	.49	.04
Within class or another experience at the college I learned to improve study skills	Developmental	536	4.14	.86	.03
	NonDev	128	4.14	.87	.07
Within class or another experience at the college I learned to understand my academic strengths /weakness	Developmental	535	3.99	.85	.03
	NonDev	128	4.00	.86	.07
Within class or another experience at the college I learned skills and strategies to improve test taking ability	Developmental	535	3.74	1.03	.04
	NonDev	128	3.73	1.008	.08

Table 38.

LSC North Harris Independent Samples Effective Track to College Readiness

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Effective track to college readiness	7.2	649	.00*	15.85
Before register required placement test	-3.95	661	.00*	-.12
Took placement test	-5.03	648	.00*	-.13
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	-15.36	656	.00*	-.48
Within class or another experience at this college I learned to improve study skills	-.03	662	.97	-.03
Within class or another experience at this college I learned to understand my academic strengths /weakness	-.15	661	.87	-.01
Within class or another experience at this college I learned skills and strategies to improve test taking ability	.07	661	.94	.00

Lone Star College North Harris developmental students are more likely to report Effective Track to College Readiness. Non-developmental students are more likely to report before they registered they were required to take a placement test, took placement test and the college required them to enroll in classes indicated by their placement test scores during their first semester.

Table 39.

LSC Tomball Statistics Effective Track to College Readiness

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Effective track to college readiness	Developmental	418	57.15	19.57	.95
	NonDev	162	32.30	28.95	2.27
Before register required placement test	Developmental	426	1.07	.24	.01
	NonDev	159	1.28	.45	.03
Took placement test	Developmental	419	1.04	.19	.01
	NonDev	154	1.13	.33	.02
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	Developmental	423	1.09	.28	.01
	NonDev	158	1.55	.49	.04
Within class or another experience at this college I learned to improve study skills	Developmental	415	4.01	.87	.04
	NonDev	163	3.65	.90	.07
Within class or another experience at this college I learned to understand my academic strengths /weakness	Developmental	416	3.87	.86	.04
	NonDev	163	3.52	.94	.07
Within class or another experience at this college learned skills and strategies to improve test taking ability	Developmental	415	3.66	.98	.04
	NonDev	163	3.20	.99	.07

Table 40.

LSC Tomball Independent Samples Effective Track to College Readiness

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Effective track to college readiness	11.88	578	.00*	24.84
Before register required placement test	-7.38	583	.00*	-.21
Took placement test	-3.90	571	.00*	-.08
This college required me to enroll in classes indicated by my placement test scores during my 1st semester.	-13.85	579	.00*	-.46
Within class or another experience at this college I learned to improve study skills	4.45	576	.00*	.36
Within class or another experience at this college I learned to understand my academic strengths /weakness	4.21	577	.00*	.34
Within class or another experience at this college I learned skills and strategies to improve test taking ability	4.98	576	.00*	.45

Lone Star College Tomball developmental students reported Effective Track to College Readiness, within class or another experience at this college they learned to improve their study skills, within class or another experience at this college they learned to understand their academic strengths and weaknesses and within class or another experience at this college they learned skills and strategies to improve test taking ability. Non-developmental students are more likely to report before they registered they were required to take a placement test, took placement test and the college required them to enroll in classes indicated by their placement test scores during their first semester.

Table 41.

LSC Tomball Statistics Engaged Learning

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Engaged Learning	Developmental	2107	56.52	20.05	.43
	NonDev	732	32.54	28.46	1.05
Ask questions in class/ contribute to class discussions	Developmental	2173	2.82	.85	.01
	NonDev	741	2.77	.901	.033
Prepare two drafts of a paper/assignment before turning it in	Developmental	2164	2.16	.88	.01
	NonDev	740	1.91	.86	.03
Participates in supplemental instruction	Developmental	2166	1.50	.84	.01
	NonDev	744	1.39	.78	.02
Works with other students on project/assignment in class	Developmental	2168	2.36	.98	.02
	NonDev	743	2.37	1.01	.03
Works with student outside class on projects/assignments	Developmental	2162	1.54	.86	.01
	NonDev	741	1.51	.83	.03
Participates in required study group outside of class	Developmental	2164	1.25	.64	.01
	NonDev	742	1.19	.58	.02
Participates in student initiated study group out of class (not required)	Developmental	2168	1.27	.66	.01
	NonDev	744	1.26	.64	.02
Uses electronic tools to communicate with students about coursework	Developmental	2166	2.03	1.11	.02
	NonDev	743	2.03	1.09	.04
Uses electronic tool to communicate w/ instructors about coursework	Developmental	2159	1.96	1.02	.02
	NonDev	743	1.91	1.00	.03
Discussed a grade/assignment with instructor	Developmental	2162	2.00	.90	.01
	NonDev	745	1.78	.84	.03
Prompt feedback	Developmental	2165	2.25	.98	.02
	NonDev	745	2.12	.99	.03
Discuss ideas from readings/class with instructor out of class	Developmental	2163	1.51	.84	.01
	NonDev	743	1.37	.72	.02
Frequency: Face-to-face tutoring	Developmental	2068	1.25	.63	.01
	NonDev	718	1.24	.66	.02
Freq: Use Writing, math, or other skill lab	Developmental	2040	1.93	1.14	.02
	NonDev	705	1.45	.93	.03
Use computer lab	Developmental	2072	2.17	1.18	.02
	NonDev	716	1.80	1.07	.04
Ask for help from an instructor regarding questions/problems related to class	Developmental	2162	2.34	.94	.02
	NonDev	743	2.17	.95	.03

Table 42.

LSC Tomball Independent Samples Engaged Learning

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff
Engaged Learning	24.80	2837	.00*	23.97
Ask questions in class/ contribute to class discussions	1.42	2912	.15	.05
Prepare two drafts of a paper/assignment before turning it in	6.59	2902	.00*	.24
Participates in supplemental instruction	3.0	2908	.02*	.10
Works with other students on project/assignment in class	-.05	2908	.95	-.00
Works with student outside class on projects/assignments	.84	2909	.39	.03
Participates in required study group outside of class	2.31	2901	.02*	.06
Participates in student initiated study group out of class (not required)	.08	2904	.93	.00
Uses electronic tools to communicate with students about coursework	.11	2910	.90	.00
Uses electronic tool to communicate w/ instructors about coursework	1.31	2900	.18	.05
Discussed a grade/assignment with instructor	5.80	2905	.00*	.22
Prompt feedback	2.95	2908	.00*	.12
Discuss ideas from readings/class with instructor out of class	3.87	2904	.58	.13
Frequency: Face-to-face tutoring	.54	2784	.00*	.01
Freq: Use Writing, math, or other skill lab	9.83	2743	.00*	.47
Use computer lab	7.22	2786	.00*	.36
Ask for help from an instructor regarding questions/problems related to class	4.07	2903	.00*	.16

Lone Star College Tomball developmental students are more likely to report Engaged Learning, they prepare two drafts of a paper or assignment before turning it in, they participate in supplemental instruction, they participate in required study group

outside of class, discussed a grade or assignment with an instructor, received prompt feedback, participated in face to face tutoring, use the writing, math, or other skill lab, use the computer lab, and ask for help from an instructor regarding questions or problems related to class.

Table 43.

LSC Cyfair Statistics Engaged Learning

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Engaged Learning	Developmental	330	56.58	19.43	1.06
	NonDev	143	34.41	25.97	2.17
Ask questions in class/ contribute to class discussions	Developmental	343	2.77	.88	.04
	NonDev	145	2.70	.96	.08
Prepare two drafts of a paper/assignment before turning it in	Developmental	342	2.23	.88	.04
	NonDev	145	2.02	.89	.07
Participates in supplemental instruction	Developmental	341	1.45	.79	.04
	NonDev	145	1.28	.67	.05
Works with other students on project/assignment in class	Developmental	342	2.47	.91	.04
	NonDev	144	2.36	.97	.08
Works w/std outside class on projects/assignments	Developmental	340	1.55	.88	.04
	NonDev	143	1.52	.82	.06
Participates in required study group outside of class	Developmental	342	1.23	.62	.03
	NonDev	143	1.15	.52	.04
Participates in student initiated study group out of class (not required)	Developmental	343	1.27	.68	.03
	NonDev	145	1.26	.59	.05
Uses electronic tools to communicate with students about coursework	Developmental	340	2.15	1.11	.06
	NonDev	145	2.09	1.08	.09
Uses electronic tool to communicate w/ instructors about coursework	Developmental	342	2.03	1.05	.05
	NonDev	145	1.97	1.03	.08
Discussed a grade/assignment with instructor	Developmental	343	2.03	.88	.04
	NonDev	145	1.79	.79	.06
Prompt feedback	Developmental	342	2.14	.969	.052
	NonDev	144	2.03	.919	.077
Discuss ideas from readings/class with instructor out of class	Developmental	341	1.51	.828	.045
	NonDev	144	1.40	.741	.062
Frequency: Face-to-face tutoring	Developmental	335	1.22	.595	.033
	NonDev	135	1.15	.540	.046
Freq: Writing, math, or other skill lab	Developmental	332	1.91	1.202	.066
	NonDev	132	1.45	.935	.081
Use computer lab	Developmental	337	2.49	1.256	.068
	NonDev	138	2.03	1.133	.096
Ask for help from an instructor regarding questions/problems related to class	Developmental	341	2.29	.942	.051
	NonDev	144	2.09	.884	.074

Table 44.

LSC Cyfair Independent Samples Engaged Learning

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Engaged Learning	10.24	471	.00*	22.17
Ask questions in class/ contribute to class discussions	.81	486	.41	.07
Prepare two drafts of a paper/assignment before turning it in	2.36	485	.01*	.20
Participates in supplemental instruction	2.24	484	.02*	.16
Works with other students on project/assignment in class	1.15	484	.25	.10
Works with student outside class on projects/assignments	.29	481	.76	.02
Participates in required study group outside of class	1.29	483	.19	.07
Participates in student initiated study group out of class (not required)	.15	486	.87	.01
Uses electronic tools to communicate with students about coursework	.52	483	.60	.05
Uses electronic tool to communicate w/ instructors about coursework	.61	485	.54	.06
Discussed a grade/assignment with instructor	2.92	486	.00*	.24
Prompt feedback	1.14	484	.25	.10
Discuss ideas from readings/class with instructor out of class	1.39	483	.16	.11
Frequency: Face-to-face tutoring	1.28	468	.20	.07
Freq: Use Writing, math, or other skill lab	3.94	462	.00*	.46
Use computer lab	3.70	473	.00*	.45
Ask for help from an instructor regardingquestions/problems relatedtoclass	2.14	483	.03*	.19

Lone Star College Cyfair developmental students are more likely to report Engaged Learning, prepare two drafts of a paper or assignment before turning it in,

participates in supplemental instruction, discussed a grade or assignment with an instructor, frequency in use of writing, math, or other skill lab, use computer lab, and asked for help from an instructor regarding questions or problems related to the class.

Table 45.

LSC Kingwood Statistics Engaged Learning

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Engaged Learning	Developmental	379	55.13	19.37	.99
	NonDev	120	32.75	26.23	2.39
Ask questions in class/ contribute to class discussions	Developmental	390	2.85	.87	.04
	NonDev	122	2.81	.80	.07
Prepare two drafts of a paper/assignment before turning it in	Developmental	385	2.00	.87	.04
	NonDev	121	1.98	.95	.08
Participates in supplemental instruction	Developmental	391	1.53	.87	.04
	NonDev	121	1.39	.81	.07
Works with other students on project/assignment in class	Developmental	392	2.35	1.01	.05
	NonDev	121	2.31	1.09	.09
Works w/std outside class on projects/assignments	Developmental	387	1.57	.88	.04
	NonDev	121	1.57	.93	.08
Participates in required study group outside of class	Developmental	389	1.25	.57	.02
	NonDev	121	1.17	.52	.04
Participates in student initiated study group out of class (not required)	Developmental	391	1.24	.60	.03
	NonDev	122	1.36	.80	.07
Uses electronic tools to communicate with students about coursework	Developmental	391	2.03	1.11	.05
	NonDev	121	2.14	1.12	.10
Uses electronic tool to communicate with instructors about coursework	Developmental	385	1.98	1.04	.05
	NonDev	121	1.89	1.00	.09
Discussed a grade/assignment with instructors	Developmental	390	1.90	.89	.04
	NonDev	122	1.70	.86	.07
Prompt feedback	Developmental	391	2.14	.95	.04
	NonDev	122	2.05	1.01	.09
Discuss ideas from readings/class with instructor out of class	Developmental	389	1.47	.81	.04
	NonDev	121	1.31	.68	.06
Frequency: Face-to-face tutoring	Developmental	375	1.25	.63	.03
	NonDev	119	1.24	.64	.05
Freq: Writing, math, or other skill lab	Developmental	364	1.36	.77	.04
	NonDev	113	1.23	.69	.06
Use computer lab	Developmental	374	1.69	.99	.05
	NonDev	117	1.50	.82	.07
Ask for help from an instructor regarding questions/problems related to class	Developmental	389	2.27	.94	.04
	NonDev	122	2.14	.95	.08

Table 46.

LSC Kingwood Independent Samples Engaged Learning

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff
Engaged Learning	10.06	497	.00*	22.37
Ask questions in class/ contribute to class discussions	.44	510	.65	.04
Prepare two drafts of a paper/assignment before turning it in	.23	504	.81	.22
Participates in supplemental instruction	.38	511	.70	.00
Works with other students on project/assignment in class	.00	506	.99	.00
Works with student outside class on projects/assignments	1.28	508	.19	.07
Participates in required study group outside of class	-1.76	511	.07	-.12
Participates in student initiated study group out of class (not required)	-.92	510	.35	-.10
Uses electronic tools to communicate with students about coursework	.82	504	.40	.08
Uses electronic tool to communicate w/ instructors about coursework	2.09	510	.03*	.19
Discussed a grade/assignment with instructor	.91	511	.36	.09
Prompt feedback	1.85	508	.06	.15
Discuss ideas from readings/class with instructor out of class	.15	492	.88	.01
Frequency: Face-to-face tutoring	.15	492	.88	.01
Freq: Use Writing, math, or other skill lab	1.8	475	.10	.13
Use computer lab	1.8	489	.07	.18
Ask for help from an instructor regarding questions/problems related to class	1.3	509	.17	.13

Lone Star College Kingwood developmental students are more likely to report significance in Engaged Learning and use of electronic tools to communicate with instructors about school work.

Table 47.

LSC Montgomery Statistics Engaged Learning

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Engaged Learning	Developmental	456	55.03	20.68	.96
	NonDev	180	24.19	29.82	2.22
Ask questions in class/ contribute to class discussions	Developmental	478	2.83	.82	.03
	NonDev	182	2.87	.88	.06
Prepare two drafts of a paper/assignment before turning it in	Developmental	475	2.12	.89	.04
	NonDev	184	1.91	.86	.06
Participates in supplemental instruction	Developmental	476	1.42	.82	.03
	NonDev	185	1.49	.83	.06
Works with other students on project/assignment in class	Developmental	478	2.32	.97	.04
	NonDev	185	2.52	.97	.07
Works w/std outside class on projects/assignments	Developmental	476	1.45	.82	.03
	NonDev	185	1.50	.79	.05
Participates in required study group outside of class	Developmental	477	1.22	.63	.02
	NonDev	185	1.25	.67	.04
Participates in student initiated study group out of class (not required)	Developmental	477	1.21	.59	.02
	NonDev	185	1.26	.58	.04
Uses electronic tools to communicate with students about coursework	Developmental	477	1.93	1.06	.04
	NonDev	185	2.08	1.10	.08
Uses electronic tool to communicate with instructors about coursework	Developmental	476	1.99	1.05	.04
	NonDev	184	2.10	1.06	.07
Discussed a grade/assignment with instructors	Developmental	476	2.02	.88	.04
	NonDev	184	1.89	.85	.06
Prompt feedback	Developmental	474	2.35	1.00	.04
	NonDev	185	2.31	1.05	.07
Discuss ideas from readings/class with instructor out of class	Developmental	476	1.47	.83	.03
	NonDev	184	1.37	.70	.05
Frequency: Face-to-face tutoring	Developmental	460	1.26	.62	.02
	NonDev	178	1.33	.76	.05
Freq: Writing, math, or other skill lab	Developmental	452	2.18	1.18	.05
	NonDev	175	1.53	.99	.07
Use computer lab	Developmental	458	1.83	1.05	.04
	NonDev	177	1.53	.96	.07
Ask for help from an instructor regarding questions/problems related to class	Developmental	475	2.33	.94	.04
	NonDev	184	2.28	.99	.07

Table 48.

LSC Montgomery Independent Samples Engaged Learning

Independent Samples Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff`
Engaged Learning	14.82	634	.00*	30.84
Ask questions in class/ contribute to class discussions	-.51	658	.60	-.03
Prepare two drafts of a paper/assignment before turning it in	2.73	657	.00*	.21
Participates in supplemental instruction	-.94	659	.34	-.06
Works with other students on project/assignment in class	-2.39	661	.01*	-.20
Works with student outside class on projects/assignments	-.67	659	.50	-.04
Participates in required study group outside of class	-.68	660	.49	-.03
Participates in student initiated study group out of class (not required)	-.68	660	.49	-.03
Uses electronic tools to communicate with students about coursework	-.1.15	660	.24	-.05
Uses electronic tool to communicate w/ instructors about coursework	-1.6	660	.10	-.14
Discussed a grade/assignment with instructor	-1.13	658	.25	-.10
Prompt feedback	1.76	658	.07	.13
Discuss ideas from readings/class with instructor out of class	.39	657	.69	.03
Frequency: Face-to-face tutoring	1.51	658	.12	.10
Freq: Use Writing, math, or other skill lab	-1.27	636	.20	-.07
Use computer lab	6.39	625	.00*	.64
Ask for help from an instructor regarding questions/problems related to class	3.32	633	.00*	.30

Lone Star College Montgomery developmental students are more likely to report they participate in Engaged Learning, prepares two drafts of a paper or assignment before turning it in, use computer lab and asks for help from an instructor regarding questions or problems related to a class. Non-developmental students are more likely to work with other students on project or assignment in class.

Table 49.

LSC North Harris Statistics Engaged Learning

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Engaged Learning	Developmental	524	58.26	20.64	.90
	NonDev	127	42.41	27.44	2.43
Ask questions in class/ contribute to class discussions	Developmental	539	2.84	.86	.03
	NonDev	128	2.72	.93	.08
Prepare two drafts of a paper/assignment before turning it in	Developmental	537	2.29	.84	.03
	NonDev	128	1.90	.81	.07
Participates in supplemental instruction	Developmental	532	1.56	.89	.03
	NonDev	129	1.52	.90	.07
Works with other students on project/assignment in class	Developmental	533	2.31	1.01	.04
	NonDev	128	2.33	1.12	.09
Works with student outside class on projects/assignments	Developmental	535	1.60	.89	.03
	NonDev	128	1.64	.89	.07
Participates in required study group outside of class	Developmental	536	1.31	.71	.03
	NonDev	129	1.21	.59	.05
Participates in student initiated study group out of class (not required)	Developmental	535	1.32	.74	.03
	NonDev	128	1.30	.73	.06
Uses electronic tools to communicate with students about coursework	Developmental	538	2.03	1.11	.04
	NonDev	128	1.95	1.06	.09
Uses electronic tool to communicate with instructors about coursework	Developmental	535	1.90	.98	.04
	NonDev	128	1.90	.97	.08
Discussed a grade/assignment with instructors	Developmental	535	2.03	.94	.04
	NonDev	130	1.86	.90	.07
Prompt feedback	Developmental	536	2.39	.99	.04
	NonDev	129	2.21	.99	.08
Discuss ideas from readings/class with instructor out of class	Developmental	538	1.55	.89	.03
	NonDev	129	1.46	.82	.07
Frequency: Face-to-face tutoring	Developmental	508	1.27	.65	.02
	NonDev	127	1.31	.77	.06
Freq: Writing, math, or other skill lab	Developmental	506	1.94	1.08	.04
	NonDev	128	1.57	.94	.08
Use computer lab	Developmental	509	2.41	1.16	.05
	NonDev	127	2.06	1.19	.10
Ask for help from an instructor regarding questions/problems related to class	Developmental	537	2.41	.96	.04
	NonDev	128	2.26	.99	.08

Table 50.

LSC North Harris Independent Samples Engaged Learning

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Engaged Learning	7.24	649	.00*	15.85
Ask questions in class/ contribute to class discussions	1.43	665	.15	.12
Prepare two drafts of a paper/assignment before turning it in	4.70	663	.00*	.38
Participates in supplemental instruction	.50	659	.61	.04
Works with other students on project/assignment in class	-.18	659	.85	-.01
Works with student outside class on projects/assignments	-.41	661	.67	-.03
Participates in required study group outside of class	1.43	663	.15	.09
Participates in student initiated study group out of class (not required)	.17	661	.85	.01
Uses electronic tools to communicate with students about coursework	.81	664	.41	.08
Uses electronic tool to communicate w/ instructors about coursework	.00 .00	661 194.80	.99 .99	.00 .00
Discussed a grade/assignment with instructor	1.81	663	.07	.16
Prompt feedback	1.85	663	.06	.18
Discuss ideas from readings/class with instructor out of class	1.03	665	.30	.08
Frequency: Face-to-face tutoring	-.55	633	.57	-.03
Freq: Use Writing, math, or other skill lab	3.57	632	.00*	.37
Use computer lab	3.02	634	.00*	.35
Ask for help from an instructor regarding questions/problems related to class	1.55	663	.12	.14

Lone Star College North Harris' developmental students are more likely to report Engaged Learning, prepare two drafts of a paper or assignment before turning it in, use the writing, math, or other skill lab, and use the computer lab.

Table 51.

LSC Cyfair Statistics Academic and Social Support Network

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic and social support network	Developmental	330	52.83	23.49	1.29
	NonDev	140	45.64	24.70	2.08
Instructors explained academic and student support services	Developmental	342	3.89	.95	.05
	NonDev	142	3.54	1.10	.09
Instructors explained grade policies	Developmental	341	4.27	.77	.04
	NonDev	141	4.17	.81	.06
Instructors explained syllabi	Developmental	340	4.49	.63	.03
	NonDev	140	4.31	.75	.06
Knew how to get in touch with instructor outside of class	Developmental	342	4.28	.82	.04
	NonDev	142	4.23	.75	.06
1 other student learned my name	Developmental	342	4.14	.94	.05
	NonDev	142	4.04	.84	.07
1 Instructor learned my name	Developmental	341	4.33	.74	.04
	NonDev	142	4.04	.99	.08
I learned 1 students name in most of my classes	Developmental	343	4.24	.92	.05
	NonDev	142	4.06	.94	.07

Table 52.

LSC Cyfair Independent Samples Academic and Social Support Network

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Academic and social support network	2.90	468	.00*	7.19
Instructors explained academic and student support services	3.57	482	.00*	.35
Instructors explained grade policies	1.30	480	.19	.10
Instructors explained syllabi	2.65	478	.49	.05
Knew how to get in touch with instructor outside of class	.69	482	.49	.05
1 other student learned my name	1.07	482	.28	.09
1 Instructor learned my name	3.44	481	.00*	.28
I learned 1 students name in most of my classes	2.00	483	.04*	.18

Lone Star College Cyfair developmental students are more likely to report Academic and Social Support, an instructor explained academic and student support services, one instructor learned their name and they learned one students name in most of their classes.

Table 53.

LSC Kingwood Statistics Academic and Social Support Network

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic and social support network	Developmental	379	50.28	23.67	1.21
	NonDev	118	47.30	26.32	2.42
Instructors explained academic and student support services	Developmental	391	3.74	1.02	.05
	NonDev	120	3.60	1.03	.09
Instructors explained grade policies	Developmental	390	4.25	.78	.04
	NonDev	119	4.15	.88	.08
Instructors explained syllabi	Developmental	390	4.40	.65	.03
	NonDev	120	4.33	.70	.06
Knew how to get in touch with instructor outside of class	Developmental	391	4.23	.80	.04
	NonDev	120	4.18	.78	.07
1 other student learned my name	Developmental	392	4.12	.94	.04
	NonDev	120	4.08	.94	.08
1 Instructor learned my name	Developmental	392	4.29	.78	.04
	NonDev	120	4.18	.90	.08
I learned 1 students name in most of my classes	Developmental	392	4.21	.90	.04
	NonDev	119	4.21	.91	.08

Table 54.

LSC Kingwood Independent Samples Academic and Social Support Network

Independent Samples Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff`
Academic and social support network	1.16	495	.24	2.98
Instructors explained academic and student support services	1.27	509	.20	.13
Instructors explained grade policies	1.15	507	.24	.09
Instructors explained syllabi	1.08	508	.28	.07
Knew how to get in touch with instructor outside of class	.59	509	.55	.05
1 other student learned my name	.39	510	.69	.03
1 Instructor learned my name	1.38	510	.16	.11
I learned 1 students name in most of my classes	-.00	509	.99	-.00

Lone Star College Kingwood had no statistical significance in the Academic and Social Support Network benchmark.

Table 55.

LSC Montgomery Statistics Academic and Social Support Network

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic and social support network	Developmental	454	51.51	23.85	1.11
	NonDev	178	50.25	24.79	1.85
Instructors explained academic and student support services	Developmental	478	3.82	.96	.04
	NonDev	182	3.66	1.05	.07
Instructors explained grade policies	Developmental	475	4.24	.76	.03
	NonDev	182	4.29	.67	.05
Instructors explained syllabi	Developmental	476	4.43	.66	.03
	NonDev	183	4.33	.67	.05
Knew how to get in touch with instructor outside of class	Developmental	476	4.34	.71	.03
	NonDev	183	4.28	.76	.05
1 other student learned my name	Developmental	475	4.10	.97	.04
	NonDev	182	4.16	.85	.06
1 Instructor learned my name	Developmental	474	4.24	.88	.04
	NonDev	183	4.13	.92	.06
I learned 1 students name in most of my classes	Developmental	476	4.21	.92	.04
	NonDev	183	4.25	.77	.05

Table 56.

LSC Montgomery Independent Samples Academic and Social Support Network

Independent Samples Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff`
Academic and social support network	.58	630	.55	1.25
Instructors explained academic and student support services	1.82	658	.06	.15
Instructors explained grade policies	-.72	655	.46	-.04
Instructors explained syllabi	1.72	657	.08	.09
Knew how to get in touch with instructor outside of class	.92	657	.35	.05
1 other student learned my name	-.75	655	.45	-.06
1 Instructor learned my name	1.45	655	.14	.11
I learned 1 students name in most of my classes	-.59	657	.55	-.04

Lone Star College Montgomery had no statistical significance in the Academic Support and Social Network benchmark.

Table 57.

LSC North Harris Statistics Academic and Social Support Network

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic and social support network	Developmental	524	49.87	24.17	1.05
	NonDev	124	51.66	21.63	1.943
Instructors explained academic and student support services	Developmental	538	3.79	.99	.04
	NonDev	126	3.57	1.08	.09
Instructors explained grade policies	Developmental	535	4.24	.80	.03
	NonDev	125	4.34	.80	.07
Instructors explained syllabi	Developmental	537	4.36	.71	.03
	NonDev	126	4.48	.65	.05
Knew how to get in touch with instructor outside of class	Developmental	538	4.34	.70	.03
	NonDev	127	4.31	.70	.06
1 other student learned my name	Developmental	538	4.07	.98	.04
	NonDev	127	4.10	.99	.08
1 Instructor learned my name	Developmental	537	4.20	.91	.04
	NonDev	127	4.38	.70	.06
I learned 1 students name in most of my classes	Developmental	538	4.16	.92	.04
	NonDev	127	4.25	.86	.07

Table 58.

LSC North Harris Independent Samples Academic and Social Support Network

Independent Samples Development vs. Non-Developmental	t	Df	Sig (2-tailed)	Mean Diff
Academic and social support network	-.75	646	.44	-1.79
Instructors explained academic and student support services	2.18	662	.02*	.21
Instructors explained grade policies	-1.2	658	.22	-.09
Instructors explained syllabi	-1.60	661	.10	-.11
Knew how to get in touch with instructor outside of class	.30	663	.75	.02
1 other student learned my name	-.30	663	.75	-.03
1 Instructor learned my name	-2.03	662	.04*	-.17
I learned 1 students name in most of my classes	-1.06	663	.29	-.09

Lone Star College North Harris developmental students are more likely to report instructors explained academic and social support services. Non-developmental students are more likely to report one instructor learned their name.

Table 59.

LSC Tomball Statistics Academic and Social Support Network

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Academic and social support network	Developmental	418	48.71	23.63	1.15
	NonDev	157	45.89	22.45	1.79
Instructors explained academic and student support services	Developmental	424	3.71	.99	.04
	NonDev	159	3.53	.98	.07
Instructors explained grade policies	Developmental	425	4.19	.77	.03
	NonDev	160	4.19	.78	.06
Instructors explained syllabi	Developmental	424	4.34	.69	.03
	NonDev	159	4.38	.66	.05
Knew how to get in touch with instructor outside of class	Developmental	424	4.26	.73	.03
	NonDev	160	4.13	.76	.06
Students learned my name	Developmental	424	4.05	.95	.04
	NonDev	159	4.00	1.01	.08
1 other student learned my name	Developmental	427	4.17	.86	.04
	NonDev	160	4.13	.84	.06
I learned 1 students name in most of my classes	Developmental	426	4.21	.84	.04
	NonDev	160	4.08	.97	.07

Table 60.

Tomball Independent Samples Academic and Social Support Network

Independent Samples Development vs. Non-Developmental

	t	Df	Sig (2-tailed)	Mean Diff`
Academic and social support network	1.29	573	.19	2.82
Instructors explained academic and student support services	1.9	581	.05	.18
Instructors explained grade policies	-.10	583	.91	-.00
Instructors explained syllabi	-.51	581	.60	-.03
Knew how to get in touch with instructor outside of class	1.83	582	.06	.12
1 other student learned my name	.60	581	.54	.05
1 Instructor learned my name	.43	585	.66	.03
I learned 1 students name in most of my classes	1.55	584	.12	.12

Lone Star College Tomball had no statistical significance in the Academic and Social Support Network benchmark.

Table 61 LSC Cyfair Statistics Early Connections

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Felt Welcomed 1st visit	Developmental	342	3.92	.860	.046
	NonDev	142	3.86	.740	.062
Instructor wants me to succeed	Developmental	342	4.29	.677	.037
	NonDev	142	4.17	.673	.057
Met with an advisor at convenient times	Developmental	338	3.45	1.10	.060
	NonDev	139	3.33	1.03	.088
An advisor helped me to select a course of study, program, or major	Developmental	340	3.28	1.25	.068
	NonDev	142	3.20	1.21	.102
Advisor helped set academic goals	Developmental	337	2.82	1.17	.064
	NonDev	141	2.65	1.16	.098
Advisor helped identify courses needed	Developmental	339	3.55	1.22	.066
	NonDev	142	3.20	1.24	.104
Staff discussed commitments outside of school	Developmental	340	2.43	1.12	.061
	NonDev	142	2.39	1.03	.087
All Instructors had activities to introduce students to one another	Developmental	340	3.50	1.16	.063
	NonDev	140	3.07	1.17	.100
Instructors explained academic & student support services	Developmental	342	3.89	.952	.051
	NonDev	142	3.54	1.10	.093
Staff Learned my name	Developmental	342	2.88	1.39	.075
	NonDev	142	2.73	1.28	.108
Students learned my name	Developmental	342	4.14	.940	.051
	NonDev	142	4.04	.849	.071
1 Instructor learned my name	Developmental	341	4.33	.741	.040
	NonDev	142	4.04	.996	.084
Participates in supplemental instruction	Developmental	341	1.45	.794	.043
	NonDev	145	1.28	.674	.056
Discussed a grade/assignment with instructor	Developmental	343	2.03	.885	.048
	NonDev	145	1.79	.792	.066
Receive prompt written or oral feedback from instructors on performance	Developmental	342	2.14	.969	.052
	NonDev	144	2.03	.919	.077

Table 62.

LSC Cyfair Independent Samples Early Connections

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Felt welcomed first visit	.78	482	.43	.06
Instructor wanted me to succeed	1.78	482	.07	.12
Met with an advisor convenient times	1.08	475	.27	.11
An advisor helped me to select a course of study, program, or major	.66	480	.50	.08
An advisor helped set academic goals	1.52	476	.12	.18
Advisor helped identify courses needed	2.80	479	.00*	.34
Staff discussed commitments out of school	.31	480	.75	.03
All instructors had activities	3.68	478	.00*	.43
Instructors explained academic & student support services	3.5	482	.00*	.35
Staff learned my name	1.11	482	.26	.15
Students learned my name	1.07	482	.28	.09
1 instructor learned my name	3.4	481	.00*	.28
Participates in supplemental instruction	2.2	484	.02*	.16
Discussed a grade/assignment with an instructor	2.9	486	.00*	.249
Receive prompt written or oral feedback from instructor on performance	1.1	484	.25	.10

To answer research question two data analysis was run to obtain frequency in developmental and non-developmental students' answers. At Lone Star College Cyfair

developmental students are more likely to report advisor helped identify courses needed, all instructors had activities to introduce students to one another, participates in supplemental instruction, and discussed a grade/assignment with an instructor.

Table 63.

LSC Kingwood Group Statistics Early Connections

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Felt Welcomed 1st visit	Developmental	392	3.81	.784	.040
	Non Dev	120	3.79	.798	.073
Instructors want me to succeed	Developmental	392	4.15	.763	.039
	Non Dev	120	4.09	.698	.064
Met with advisor at convenient times	Developmental	390	3.58	1.06	.054
	Non Dev	118	3.63	1.06	.098
An advisor helped me to select a course of study, program, or major	Developmental	390	3.75	1.09	.055
	Non Dev	119	3.66	1.07	.099
Advisor helped set academic goals	Developmental	389	3.22	1.13	.058
	Non Dev	120	3.09	1.09	.100
Advisor helped identify courses needed	Developmental	391	3.99	1.03	.053
	Non Dev	120	3.76	1.06	.097
Staff discussed commitments outside of school	Developmental	387	2.77	1.16	.059
	Non Dev	120	2.67	1.11	.101
All Instructors had activities to introduce students to one another	Developmental	390	3.22	1.19	.061
	Non Dev	120	2.94	1.14	.105
Instructors explained academic & student support services	Developmental	391	3.74	1.02	.052
	Non Dev	120	3.60	1.03	.094
Staff learned my name	Developmental	392	3.06	1.35	.068
	Non Dev	120	2.94	1.34	.123
Students learned my name	Developmental	392	4.12	.949	.048
	Non Dev	120	4.08	.949	.087
1 Instructor learned my name	Developmental	392	4.29	.789	.040
	Non Dev	120	4.18	.904	.083
Participates in supplemental instruction	Developmental	391	1.53	.873	.044
	Non Dev	121	1.39	.810	.074
Discussed a grade/assignment with an instructor	Developmental	390	1.90	.890	.045
	Non Dev	122	1.70	.869	.079
Receive prompt written/ oral feedback from instructor on performance	Developmental	391	2.14	.954	.048
	Non Dev	122	2.05	1.011	.092

Table 64.

LSC Kingwood Independent Samples Early Connections

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff
Felt welcomed first visit	.23	510	.81	.02
Instructor wanted me to succeed	.72	510	.47	.05
Met with an advisor convenient times	-.42	506	.67	-.04
An advisor helped me to select a course of study, program, or major	.84	507	.40	.09
An advisor helped set academic goals	1.05	507	.29	.12
Advisor helped identify courses needed	2.1	509	.03*	.22
Staff discussed commitments out of school	.85	505	.39	.10
All instructors had activities to introduce students to one another	2.2	508	.02*	.28
Instructors explained academic & student support services	1.2	509	.20	.13
Staff learned my name	.81	510	.41	.11
Student learned my name	.39	510	.69	.03
1 instructor learned my name	1.3	510	.16	.11
Participates in supplemental instruction	1.5	510	.11	.14
Discussed a grade/assignment with an instructor	2.0	510	.03*	.19
Receive prompt written or oral feedback from instructor on performance	.91	511	.36	.09

Lone Star College Kingwood developmental students are more likely to report advisor helped identify courses needed, all instructors had activities to introduce students to one another and discussed a grade/assignment with an instructor.

Table 65.

LSC Montgomery Statistics Early Connections

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Felt Welcomed 1st visit	Developmental	478	3.89	.808	.037
	NonDev	183	3.77	.800	.059
Instructor wants me to succeed	Developmental	476	4.18	.706	.032
	NonDev	183	4.10	.656	.048
Met w/advisor convenient times	Developmental	473	3.74	.964	.044
	NonDev	182	3.69	.995	.074
An advisor helped me to select a course of study, program, or major	Developmental	474	3.47	1.21	.056
	NonDev	183	3.42	1.21	.090
Advisor helped set academic goals	Developmental	474	2.97	1.13	.052
	NonDev	183	2.94	1.15	.085
Advisor helped identify courses needed	Developmental	473	3.78	1.06	.049
	NonDev	183	3.66	1.15	.085
Staff discussed commitments outside of school	Developmental	475	2.71	1.18	.054
	NonDev	183	2.73	1.09	.081
All Instructors had activities	Developmental	476	3.00	1.14	.052
	NonDev	183	2.96	1.12	.083
Instructors explained academic and student support services	Developmental	478	3.82	.962	.044
	NonDev	182	3.66	1.05	.078
Staff Learned my name	Developmental	477	2.81	1.32	.061
	NonDev	183	2.67	1.31	.097
Students learned my name	Developmental	475	4.10	.972	.045
	NonDev	182	4.16	.851	.063
1 Instructor learned my name	Developmental	474	4.24	.882	.040
	NonDev	183	4.13	.928	.069
Participates in supplemental instruction	Developmental	476	1.42	.821	.038
	NonDev	185	1.49	.835	.061
Discussed a grade/assignment with instructor	Developmental	476	2.02	.889	.041
	NonDev	184	1.89	.858	.063
Receive prompt written/ oral feedback from instructor on performance	Developmental	474	2.35	1.00	.046
	NonDev	185	2.31	1.05	.077

Table 66.

LSC Montgomery Independent Samples Early Connections

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Felt welcomed first visit	1.7	659	.08	.12
Instructor wanted me to succeed	1.3	657	.17	.08
Met with an advisor convenient times	.65	653	.51	.05
An advisor helped me to select a course of study, program, or major	.52	655	.60	.05
An advisor helped set academic goals	.32	655	.74	.03
Advisor helped identify courses needed	1.2	654	.20	.12
Staff discussed commitments out of school	-.24	656	.80	-.02
All instructors had activities	.42	657	.66	.04
Instructors explained academic & student support services	1.8	658	.06	.15
Staff learned my name	1.2	658	.22	.13
Student learned my name	-.75	655	.45	.06
1 instructor learned my name	1.4	655	.14	.11
Participates in supplemental instruction	-.94	659	.34	-.06
Discussed a grade/assignment with an instructor	1.7	658	.07	.13
Receive prompt written or oral feedback from instructor on performance	.39	657	.69	.03

Lone Star College Montgomery developmental students had no statistical significance.

Table 67.

LSC North Harris Statistics Early Connections

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Felt Welcomed 1st visit	Developmental	540	3.94	.804	.035
	Non Dev	127	3.94	.880	.078
Instructor wants me to succeed	Developmental	539	4.31	.684	.029
	Non Dev	127	4.19	.804	.071
Met with advisor convenient times	Developmental	532	3.82	.942	.041
	Non Dev	126	3.84	.933	.083
An advisor helped me to select a course of study, program, or major	Developmental	537	3.83	1.13	.049
	Non Dev	126	3.96	1.09	.097
Advisor helped set academic goals	Developmental	536	3.22	1.20	.052
	Non Dev	126	3.34	1.26	.113
Advisor helped identify courses needed	Developmental	538	4.09	.961	.041
	Non Dev	126	4.06	.961	.086
Staff discussed commitments outside of school	Developmental	537	2.89	1.31	.057
	Non Dev	124	2.89	1.30	.117
All Instructors had activities to introduce students to one another.	Developmental	534	3.26	1.22	.053
	Non Dev	126	2.81	1.16	.104
Instructors explained academic &std support services	Developmental	538	3.79	.995	.043
	Non Dev	126	3.57	1.08	.097
Staff Learned my name	Developmental	538	3.14	1.38	.060
	Non Dev	127	3.24	1.45	.129
Students learned my name	Developmental	538	4.07	.986	.043
	Non Dev	127	4.10	.991	.088
1 Instructor learned my name	Developmental	537	4.20	.917	.040
	Non Dev	127	4.38	.701	.062
Participates in supplemental instruction	Developmental	532	1.56	.892	.039
	Non Dev	129	1.52	.902	.079
Discussed a grade/assignment with instructor	Developmental	535	2.03	.947	.041
	Non Dev	130	1.86	.904	.079
Receive prompt written/ oral feedback from instructor on performance	Developmental	536	2.39	.993	.043
	NonDev	129	2.21	.997	.088

Table 68.

LSC North Harris Independent Samples Early Connections

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Felt welcomed first visit	.04	665	.96	.00
Instructor wanted me to succeed	1.7	664	.07	.12
Met with an advisor convenient times	-.19	656	.84	-.01
An advisor helped me to select a course of study, program, or major	-.1.16	661	.24	-.13
An advisor helped set academic goals	-.1.00	660	.31	-.12
Advisor helped identify courses needed	.23	662	.81	.02
Staff discussed commitments out of school	.00	659	.81	.02
All instructors had activities to introduce students to one another	3.78	658	.00*	.45
Instructors explained academic & student support services	2.18	662	.02*	.21
Staff learned my name	-.73	663	.46	-.10
Student learned my name	-.30	663	.75	-.03
1 instructor learned my name	-2.03	662	.04*	-.17
Participates in supplemental instruction	.50	659	.61	.04
Discussed a grade/assignment with an instructor	1.81	663	.07	.16
Receive prompt written or oral feedback from instructor on performance	1.85	663	.06	.18

Lone Star College North Harris developmental students are more likely to say all instructors had activities to introduce students to one another and instructors explained

academic and student support services. Non-developmental students are more likely to report one instructor learned my name.

Table 69.

LSC Tomball Statistics Early Connections

Group Statistics

	Developmental Student	N	Mean	Std. Deviation	Std. Error Mean
Felt Welcomed 1st visit	Developmental	424	3.92	.769	.037
	Non Dev	160	3.71	.757	.060
Instructor wants me to succeed	Developmental	426	4.31	.653	.032
	Non Dev	160	4.13	.701	.055
Met with advisor convenient times	Developmental	426	3.76	.973	.047
	Non Dev	159	3.81	.910	.072
An advisor helped me to select a course of study, program, or major	Developmental	425	3.64	1.12	.054
	Non Dev	158	3.54	1.16	.092
Advisor helped set academic goals	Developmental	424	3.18	1.12	.054
	Non Dev	160	2.84	.994	.079
Advisor helped identify courses needed	Developmental	425	3.87	1.02	.050
	Non Dev	160	3.59	1.11	.088
Staff discussed commitments outside of school	Developmental	425	2.69	1.20	.058
	Non Dev	160	2.56	1.05	.083
All Instructors had activities to introduce students to one another	Developmental	425	3.31	1.19	.058
	Non Dev	158	2.89	1.06	.085
Instructors explained academic &std support services	Developmental	424	3.71	.999	.049
	Non Dev	159	3.53	.986	.078
Staff learned my name	Developmental	425	2.94	1.35	.066
	Non Dev	160	2.67	1.29	.103
Students learned my name	Developmental	424	4.05	.952	.046
	Non Dev	159	4.00	1.01	.081
1 Instructor learned my name	Developmental	427	4.17	.868	.042
	Non Dev	160	4.13	.848	.067
Participates in supplemental instruction	Developmental	426	1.50	.830	.040
	Non Dev	164	1.26	.652	.051
Discussed a grade/assignment with instructor	Developmental	418	2.00	.903	.044
	NonDev	164	1.65	.797	.062
Receive prompt written/ oral feedback from instructor on performance	Developmental	422	2.14	.963	.047
	NonDev	165	1.98	.947	.074

Table 70.

LSC Tomball Independent Samples Early Connections

Independent Samples Development vs. Non-Developmental				
	t	Df	Sig (2-tailed)	Mean Diff`
Felt welcomed first visit	2.97	582	.00*	.21
Instructor wanted me to succeed	2.92	584	.00*	.18
Met with an advisor convenient times	-.52	583	.59	-.04
An advisor helped me to select a course of study, program, or major	.98	581	.32	.10
An advisor helped set academic goals	3.30	582	.00*	.33
Advisor helped identify courses needed	2.86	583	.00*	.27
Staff discussed commitments out of school	1.28	583	.20	.13
All instructors had activities to introduce students to one another	3.88	581	.00*	.42
Instructors explained academic & student support services	1.94	581	.05	.18
Staff learned my name	2.15	583	.03*	.26
Student learned my name	.60	581	.54	.05
1 instructor learned my name	.43	585	.66	.03
Participates in supplemental instruction	3.35	588	.00*	.24
Discussed a grade/assignment with an instructor	4.44	580	.00*	.35
Receive prompt written or oral feedback from instructor on performance	1.85	585	.06	.16

Lone Star College Tomball developmental students are more likely to report they felt welcomed on their first visit to the campus, instructors want them to succeed, advisor helped them set academic goals, an advisor helped identify courses needed, all

instructors had activities to introduce student to one another, staff learned my name, participates in supplemental instruction, and discussed a grade/assignment with an instructor.

Table 71.

Categorical Data-Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	Online Orient prior to classes	No response	Count	325	140	465
			% within Developmental Student	94.8%	96.6%	95.3%
		Response	Count	18	5	23
			% within Developmental Student	5.2%	3.4%	4.7%
	Total		Count	343	145	488
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Online Orient prior to classes	No response	Count	377	119	496
			% within Developmental Student	96.2%	97.5%	96.5%
		Response	Count	15	3	18
			% within Developmental Student	3.8%	2.5%	3.5%
	Total		Count	392	122	514
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Online Orient prior to classes	No response	Count	466	178	644
			% within Developmental Student	97.1%	96.2%	96.8%
		Response	Count	14	7	21
			% within Developmental Student	2.9%	3.8%	3.2%
	Total		Count	480	185	665
			% within Developmental Student	100.0%	100.0%	100.0%

North Harris	Online Orient prior to classes	No response	Count	514	121	635
			% within Developmental Student	95.2%	93.1%	94.8%
		Response	Count	26	9	35
			% within Developmental Student	4.8%	6.9%	5.2%
	Total		Count	540	130	670
			% within Developmental Student	100.0%	100.0%	100.0 %
Tomball	Online Orient prior to classes	No response	Count	409	160	569
			% within Developmental Student	95.8%	97.0%	96.1%
		Response	Count	18	5	23
			% within Developmental Student	4.2%	3.0%	3.9%
	Total		Count	427	165	592
			% within Developmental Student	100.0%	100.0%	100.0 %

Table 72.

Categorical Data -Research Question #2 Institutional Practices

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	.73[a]	1	.39		
	Continuity Correction[b]	.38	1	.53		
	Likelihood Ratio	.77	1	.37		
	Fisher's Exact Test				.48	.27
	Linear-by-Linear Association	.73	1	.39		
	N of Valid Cases	488				
Kingwood	Pearson Chi-Square	.51[c]	1	.47		
	Continuity Correction[b]	.19	1	.66		
	Likelihood Ratio	.55	1	.45		
	Fisher's Exact Test				.58	.34
	Linear-by-Linear Association	.51	1	.47		
	N of Valid Cases	514				
Montgomery	Pearson Chi-Square	.32[d]	1	.56		
	Continuity Correction[b]	.10	1	.74		
	Likelihood Ratio	.31	1	.57		
	Fisher's Exact Test				.62	.36
	Linear-by-Linear Association	.32	1	.56		
	N of Valid Cases	665				
North Harris	Pearson Chi-Square	.94[e]	1	.33		
	Continuity Correction[b]	.56	1	.45		
	Likelihood Ratio	.87	1	.34		
	Fisher's Exact Test				.37	.22
	Linear-by-Linear Association	.93	1	.33		
	N of Valid Cases	670				
Tomball	Pearson Chi-Square	.44[f]	1	.50		
	Continuity Correction[b]	.18	1	.66		
	Likelihood Ratio	.47	1	.49		
	Fisher's Exact Test				.63	.34
	Linear-by-Linear Association	.44	1	.50		
	N of Valid Cases	592				

There is no statistical significance reported by developmental students at Lone Star College System Colleges when asked if they participated in online orientation prior to class.

Table 73.

Categorical data-Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	On campus orientation	No response	Count	237	94	331
			% within Developmental Student	69.1%	64.8%	67.8%
		Response	Count	106	51	157
			% within Developmental Student	30.9%	35.2%	32.2%
	Total		Count	343	145	488
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	On campus orientation	No response	Count	336	99	435
			% within Developmental Student	85.7%	81.1%	84.6%
		Response	Count	56	23	79
			% within Developmental Student	14.3%	18.9%	15.4%
	Total		Count	392	122	514
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	On campus orientation	No response	Count	228	98	326
			% within Developmental Student	47.5%	53.0%	49.0%
		Response	Count	252	87	339
			% within Developmental Student	52.5%	47.0%	51.0%
	Total		Count	480	185	665
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	On campus orientation	No response	Count	437	97	534
			% within Developmental Student	80.9%	74.6%	79.7%

		Response	Count	103	33	136
			% within Developmental Student	19.1%	25.4%	20.3%
	Total		Count	540	130	670
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	On campus orientation	No response	Count	346	141	487
			% within Developmental Student	81.0%	85.5%	82.3%
		Response	Count	81	24	105
			% within Developmental Student	19.0%	14.5%	17.7%
	Total		Count	427	165	592
			% within Developmental Student	100.0%	100.0%	100.0%

Table 74.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	.85[a]	1	.35		
	Continuity Correction[b]	.66	1	.41		
	Likelihood Ratio	.84	1	.35		
	Fisher's Exact Test				.39	.20
	Linear-by-Linear Association	.84	1	.35		
	N of Valid Cases	488				
Kingwood	Pearson Chi-Square	1.49[c]	1	.22		
	Continuity Correction[b]	1.16	1	.28		
	Likelihood Ratio	1.43	1	.23		
	Fisher's Exact Test				.25	.14
	Linear-by-Linear Association	1.48	1	.22		
	N of Valid Cases	514				
Montgomery	Pearson Chi-Square	1.60[d]	1	.20		
	Continuity Correction[b]	1.38	1	.23		
	Likelihood Ratio	1.60	1	.20		
	Fisher's Exact Test				.22	.11
	Linear-by-Linear Association	1.59	1	.20		
	N of Valid Cases	665				
North Harris	Pearson Chi-Square	2.57[e]	1	.10		
	Continuity Correction[b]	2.20	1	.13		
	Likelihood Ratio	2.47	1	.11		
	Fisher's Exact Test				.11	.07
	Linear-by-Linear Association	2.57	1	.10		
	N of Valid Cases	670				
Tomball	Pearson Chi-Square	1.59[f]	1	.20		
	Continuity Correction[b]	1.30	1	.25		
	Likelihood Ratio	1.64	1	.19		
	Fisher's Exact Test				.23	.12
	Linear-by-Linear Association	1.59	1	.20		
	N of Valid Cases	592				

There is no statistical significance reported by developmental students at Lone Star College System colleges when asked if they participated in on-campus orientation prior to the beginning of classes.

Table 75.

Categorical Data- Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	Before register required placement test	Yes	Count	326	107	433
			% within Developmental Student	95.0%	75.4%	89.3%
		No	Count	17	35	52
			% within Developmental Student	5.0%	24.6%	10.7%
	Total		Count	343	142	485
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Before register required placement test	Yes	Count	359	92	451
			% within Developmental Student	92.5%	76.7%	88.8%
		No	Count	29	28	57
			% within Developmental Student	7.5%	23.3%	11.2%
	Total		Count	388	120	508
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Before register required placement test	Yes	Count	441	104	545
			% within Developmental Student	92.5%	56.8%	82.6%
		No	Count	36	79	115
			% within Developmental Student	7.5%	43.2%	17.4%
	Total		Count	477	183	660
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Before register required placement test	Yes	Count	491	100	591
			% within Developmental Student	91.4%	79.4%	89.1%
		No	Count	46	26	72
			% within Developmental Student	8.6%	20.6%	10.9%
	Total		Count	537	126	663
			% within Developmental Student	100.0%	100.0%	100.0%

Tomball	Before register required placement test	Yes	Count	398	114	512
			% within Developmental Student	93.4%	71.7%	87.5%
		No	Count	28	45	73
			% within Developmental Student	6.6%	28.3%	12.5%
	Total		Count	426	159	585
			% within Developmental Student	100.0%	100.0%	100.0%

Table 76.

Chi-Square Tests

Chi-Square Tests

Campus		Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	40.6[a]	1	.00		
	Continuity Correction[b]	38.6	1	.00		
	Likelihood Ratio	36.5	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	40.5	1	.00		
	N of Valid Cases	485				
Kingwood	Pearson Chi-Square	23.1[c]	1	.00		
	Continuity Correction[b]	21.5	1	.00		
	Likelihood Ratio	20.12	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	23.0	1	.00		
	N of Valid Cases	508				
Montgomery	Pearson Chi-Square	116.6[d]	1	.000		
	Continuity Correction[b]	114.1	1	.000		
	Likelihood Ratio	105.0	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	116.4	1	.00		
	N of Valid Cases	660				
North Harris	Pearson Chi-Square	15.3[e]	1	.00		
	Continuity Correction[b]	14.1	1	.00		
	Likelihood Ratio	13.2	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	15.3	1	.00		
	N of Valid Cases	663				
Tomball	Pearson Chi-Square	50.0[f]	1	.00		
	Continuity Correction[b]	48.0	1	.00		
	Likelihood Ratio	44.3	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	49.9	1	.00		
	N of Valid Cases	585				

The administrative practice of requiring a placement test prior to courses was statistically significant for all developmental students surveyed at Lone Star College System. The survey results for each college are as follows: 95.0% of developmental students at Lone Star College Cyfair and 75.4% of non-developmental students, 92.5% developmental students from Lone Star College Kingwood and 76.7% non-

developmental students, 92.5% developmental students from Lone Star Montgomery and 56.8% non-developmental students, 91.4% of developmental students from Lone Star College North Harris and 79.4% non-developmental students, and 93.4% of developmental students from Lone Star College Tomball and 71.7% of non-developmental students all are more likely to report that before registration were required to take a placement test. The Chi Square tests reflect the significance of this administrative practice.

Table 77.

Categorical Data-Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	Took placement test	Yes	Count	324	120	444
			% within Developmental Student	96.1%	85.7%	93.1%
		No	Count	13	20	33
			% within Developmental Student	3.9%	14.3%	6.9%
	Total		Count	337	140	477
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Took placement test	Yes	Count	371	102	473
			% within Developmental Student	95.9%	85.7%	93.5%
		No	Count	16	17	33
			% within Developmental Student	4.1%	14.3%	6.5%
	Total		Count	387	119	506
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Took placement test	Yes	Count	448	141	589
			% within Developmental Student	95.1%	77.9%	90.3%
		No	Count	23	40	63
			% within Developmental Student	4.9%	22.1%	9.7%
	Total		Count	471	181	652
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Took placement test	Yes	Count	501	101	602
			% within Developmental Student	95.1%	82.1%	92.6%
		No	Count	26	22	48
			% within Developmental Student	4.9%	17.9%	7.4%
	Total		Count	527	123	650
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	Took placement test	Yes	Count	402	134	536
			% within Developmental Student	95.9%	87.0%	93.5%
		No	Count	17	20	37
			% within Developmental Student	4.1%	13.0%	6.5%
	Total		Count	419	154	573
			% within Developmental Student	100.0%	100.0%	100.0%

Table 78.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	16.7[a]	1	.00		
	Continuity Correction[b]	15.1	1	.00		
	Likelihood Ratio	14.9	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	16.6	1	.00		
	N of Valid Cases	477				
Kingwood	Pearson Chi-Square	15.3[c]	1	.00		
	Continuity Correction[b]	13.7	1	.00		
	Likelihood Ratio	13.0	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	15.3	1	.00		
	N of Valid Cases	506				
Montgomery	Pearson Chi-Square	44.3[d]	1	.00		
	Continuity Correction[b]	42.4	1	.00		
	Likelihood Ratio	39.2	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	44.3	1	.00		
	N of Valid Cases	652				
North Harris	Pearson Chi-Square	24.4[e]	1	.00		
	Continuity Correction[b]	22.6	1	.00		
	Likelihood Ratio	19.8	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	24.4	1	.00		
	N of Valid Cases	650				
Tomball	Pearson Chi-Square	14.8[f]	1	.00		
	Continuity Correction[b]	13.4	1	.00		
	Likelihood Ratio	13.1	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	14.8	1	.00		
	N of Valid Cases	573				

Developmental students significantly reported they are more likely to report they took a placement test (COMPASS, ASSET, ACCUPLACER, SAT, ACT, etc.) at all Lone Star College System campuses. The survey reported 96.1% of developmental students 85.7% of non-developmental students at Lone Star College Cyfair, 95.9% developmental students at Lone Star College Kingwood and 85.7% non-developmental

students, 95.1% developmental students at Lone Star College Montgomery and 77.9% non-developmental students, 95.1% developmental students at Lone Star College Montgomery and 82.1% non-developmental students, 95.9% developmental students at Lone Star College Tomball and 87.0% non-developmental students all are more likely to report they took a placement exam. The Chi Square Tests reflect the significance of .05 or less.

Table 79.

Categorical Data-Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	exptest	1	Count	43	45	88
			% within Developmental Student	12.8%	33.3%	18.7%
		2	Count	293	90	383
			% within Developmental Student	87.2%	66.7%	81.3%
	Total		Count	336	135	471
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	exptest	1	Count	36	41	77
			% within Developmental Student	9.7%	34.7%	15.7%
		2	Count	336	77	413
			% within Developmental Student	90.3%	65.3%	84.3%
	Total		Count	372	118	490
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	exptest	1	Count	63	87	150
			% within Developmental Student	13.6%	49.2%	23.5%
		2	Count	399	90	489
			% within Developmental Student	86.4%	50.8%	76.5%
	Total		Count	462	177	639
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	exptest	1	Count	63	33	96
			% within Developmental Student	12.2%	26.4%	14.9%
		2	Count	455	92	547
			% within Developmental Student	87.8%	73.6%	85.1%
	Total		Count	518	125	643
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	exptest	1	Count	49	50	99
			% within Developmental Student	12.0%	32.7%	17.6%
		2	Count	361	103	464
			% within Developmental Student	88.0%	67.3%	82.4%
	Total		Count	410	153	563
			% within Developmental Student	100.0%	100.0%	100.0%

Table 80.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	26.7[a]	1	.00		
	Continuity Correction[b]	25.3	1	.00		
	Likelihood Ratio	24.7	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	26.6	1	.00		
	N of Valid Cases	471				
Kingwood	Pearson Chi-Square	42.5[c]	1	.00		
	Continuity Correction[b]	40.6	1	.00		
	Likelihood Ratio	37.2	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	42.4	1	.00		
	N of Valid Cases	490				
Montgomery	Pearson Chi-Square	89.8[d]	1	.00		
	Continuity Correction[b]	87.8	1	.00		
	Likelihood Ratio	83.0	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	89.7	1	.00		
	N of Valid Cases	639				
North Harris	Pearson Chi-Square	16.0[e]	1	.00		
	Continuity Correction[b]	14.9	1	.00		
	Likelihood Ratio	14.2	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	16.0	1	.00		
	N of Valid Cases	643				
Tomball	Pearson Chi-Square	33.0[f]	1	.00		
	Continuity Correction[b]	31.6	1	.00		
	Likelihood Ratio	30.1	1	.00		
	Fisher's Exact Test				.00	.00
	Linear-by-Linear Association	32.9	1	.00		
	N of Valid Cases	563				

There was a statistical significance response from non-developmental students who reported they were exempt from taking a placement test at the college. The percentages are as follows: Lone Star College Cyfair 12.8% developmental students, 33.3% non-developmental students, Lone Star College Kingwood 9.7% developmental students, 34.7% non-developmental students, Lone Star College Montgomery 13.6%

developmental students and 49.2% non-developmental students, Lone Star College North Harris 12.2% developmental students and 26.4% non-developmental, and Lone Star College Tomball 12.0% developmental students and 32.7 non-developmental students. The Chi-Square tests reflect the significance of less than .05.

Table 81.

Categorical Data- Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	Required Dev Ed	Yes	Count	310	53	363
			% within Developmental Student	90.9%	37.6%	75.3%
		No	Count	31	88	119
			% within Developmental Student	9.1%	62.4%	24.7%
	Total		Count	341	141	482
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Required Dev Ed	Yes	Count	361	39	400
			% within Developmental Student	92.8%	33.1%	78.9%
		No	Count	28	79	107
			% within Developmental Student	7.2%	66.9%	21.1%
	Total		Count	389	118	507
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Required Dev Ed	Yes	Count	414	47	461
			% within Developmental Student	87.9%	26.4%	71.0%
		No	Count	57	131	188
			% within Developmental Student	12.1%	73.6%	29.0%
	Total		Count	471	178	649
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Required Dev Ed	Yes	Count	496	55	551
			% within Developmental Student	92.9%	44.4%	83.7%
		No	Count	38	69	107
			% within Developmental Student	7.1%	55.6%	16.3%
	Total		Count	534	124	658
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	Required Dev Ed	Yes	Count	385	71	456
			% within Developmental Student	91.0%	44.9%	78.5%
		No	Count	38	87	125
			% within Developmental Student	9.0%	55.1%	21.5%
	Total		Count	423	158	581
			% within Developmental Student	100.0%	100.0%	100.0%

Table 82.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	152.5[a]	1	.00		
	Continuity Correction[b]	149.6	1	.00		
	Likelihood Ratio	144.3	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	152.2	1	.00		
	N of Valid Cases	482				
Kingwood	Pearson Chi-Square	194.1[c]	1	.00		
	Continuity Correction[b]	190.5	1	.00		
	Likelihood Ratio	171.5	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	193.7	1	.00		
	N of Valid Cases	507				
Montgomery	Pearson Chi-Square	237.4[d]	1	.00		
	Continuity Correction[b]	234.4	1	.00		
	Likelihood Ratio	228.1	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	237.0	1	.00		
	N of Valid Cases	649				
North Harris	Pearson Chi-Square	174.0[e]	1	.00		
	Continuity Correction[b]	170.4	1	.00		
	Likelihood Ratio	139.8	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	173.7	1	.00		
	N of Valid Cases	658				
Tomball	Pearson Chi-Square	144.6[f]	1	.00		
	Continuity Correction[b]	141.9	1	.00		
	Likelihood Ratio	132.0	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	144.4	1	.00		
	N of Valid Cases	581				

There is a statistical significance for developmental students who reported the college required them to enroll in classes indicated by their placement test scores during their first semester/quarter. The results are as follows: Lone Star College Cyfair 90.9% developmental students, 37.6% non-developmental students, Lone Star College

Kingwood 92.8% developmental and 33.1% non-developmental students, Lone Star College Montgomery 87.9% developmental students and 26.4% non-developmental students, Lone Star College North Harris 92.9% developmental students, and 44.4% non-developmental students, and Lone Star College Tomball 91.0% developmental students and 44.9% non-developmental students. The Chi-Square Tests have a significance of less than .05.

Table 83.

Categorical Data-Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	enrlssdc	1	Count	25	3	28
			% within Developmental Student	7.6%	2.1%	5.9%
		2	Count	304	140	444
			% within Developmental Student	92.4%	97.9%	94.1%
	Total		Count	329	143	472
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	enrlssdc	1	Count	39	1	40
			% within Developmental Student	10.5%	.8%	8.2%
		2	Count	331	117	448
			% within Developmental Student	89.5%	99.2%	91.8%
	Total		Count	370	118	488
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	enrlssdc	1	Count	40	1	41
			% within Developmental Student	8.8%	.6%	6.5%
		2	Count	412	179	591
			% within Developmental Student	91.2%	99.4%	93.5%
	Total		Count	452	180	632
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	enrlssdc	1	Count	41	3	44
			% within Developmental Student	8.0%	2.5%	7.0%
		2	Count	469	118	587
			% within Developmental Student	92.0%	97.5%	93.0%
	Total		Count	510	121	631
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	enrlssdc	1	Count	43	3	46
			% within Developmental Student	11.1%	2.0%	8.6%
		2	Count	343	149	492
			% within Developmental Student	88.9%	98.0%	91.4%
	Total		Count	386	152	538
			% within Developmental Student	100.0%	100.0%	100.0%

Table 84.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	5.40[a]	1	.02		
	Continuity Correction[b]	4.46	1	.03		
	Likelihood Ratio	6.46	1	.01		
	Fisher's Exact Test				.01*	.01
	Linear-by-Linear Association	5.39	1	.02		
	N of Valid Cases	472				
Kingwood	Pearson Chi-Square	11.1[c]	1	.00		
	Continuity Correction[b]	9.9	1	.00		
	Likelihood Ratio	15.9	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	11.1	1	.00		
	N of Valid Cases	488				
Montgomery	Pearson Chi-Square	14.59[d]	1	.00		
	Continuity Correction[b]	13.26	1	.00		
	Likelihood Ratio	20.86	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	14.57	1	.00		
	N of Valid Cases	632				
North Harris	Pearson Chi-Square	4.6[e]	1	.03		
	Continuity Correction[b]	3.8	1	.05		
	Likelihood Ratio	5.7	1	.01		
	Fisher's Exact Test				.02*	.01
	Linear-by-Linear Association	4.6	1	.03		
	N of Valid Cases	631				
Tomball	Pearson Chi-Square	11.7[f]	1	.00		
	Continuity Correction[b]	10.5	1	.00		
	Likelihood Ratio	14.9	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	11.6	1	.00		
	N of Valid Cases	538				

Developmental students at all colleges within Lone Star College System are more likely to report they enrolled during their first semester/quarter into a specifically designed course to teach skills and strategies to help students succeed in college (e.g. a college success or student course). The percentages from the student survey are as follows: Lone Star College Cyfair 7.6% developmental students and 2.1 % non-

developmental, Lone Star College Kingwood 10.5% developmental and .8% non-developmental, Lone Star College Montgomery 8.8% developmental and .6% non-developmental, Lone Star College North Harris 8.0% developmental and 2.5% non-developmental, and Lone Star College Tomball 11.1% developmental and 2.0% non-developmental. The Chi-Square Test justifies the significance at less than 05.

Table 85.

Categorical Data- Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	Enrolled 1st semester learning commu	Enrolled	Count	6	1	7
			% within Developmental Student	1.8%	.7%	1.5%
		Not Enrolled	Count	321	142	463
			% within Developmental Student	98.2%	99.3%	98.5%
	Total		Count	327	143	470
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Enrolled 1st semester learning commu	Enrolled	Count	7	3	10
			% within Developmental Student	1.9%	2.5%	2.1%
		Not Enrolled	Count	362	115	477
			% within Developmental Student	98.1%	97.5%	97.9%
	Total		Count	369	118	487
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Enrolled 1st semester learning commu	Enrolled	Count	5	2	7
			% within Developmental Student	1.1%	1.1%	1.1%
		Not Enrolled	Count	446	178	624
			% within Developmental Student	98.9%	98.9%	98.9%
	Total		Count	451	180	631
			% within Developmental Student	100.0%	100.0%	100.0%

North Harris	Enrolled 1st semester learning commu	Enrolled	Count	25	3	28
			% within Developmental Student	4.9%	2.5%	4.5%
		Not Enrolled	Count	483	118	601
			% within Developmental Student	95.1%	97.5%	95.5%
	Total		Count	508	121	629
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	Enrolled 1st semester learning commu	Enrolled	Count	7	0	7
			% within Developmental Student	1.8%	.0%	1.3%
		Not Enrolled	Count	377	151	528
			% within Developmental Student	98.2%	100.0%	98.7%
	Total		Count	384	151	535
			% within Developmental Student	100.0%	100.0%	100.0%

Table 86.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	.87[a]	1	.35		
	Continuity Correction[b]	.27	1	.60		
	Likelihood Ratio	1.00	1	.31		
	Fisher's Exact Test				.68	.31
	Linear-by-Linear Association	.87	1	.35		
	N of Valid Cases	470				
Kingwood	Pearson Chi-Square	.18[c]	1	.66		
	Continuity Correction[b]	.00	1	.95		
	Likelihood Ratio	.17	1	.67		
	Fisher's Exact Test				.71	.45
	Linear-by-Linear Association	.18	1	.66		
	N of Valid Cases	487				
Montgomery	Pearson Chi-Square	.00[d]	1	.99		
	Continuity Correction[b]	.00	1	1.00		
	Likelihood Ratio	.00	1	.99		
	Fisher's Exact Test				1.00	.64
	Linear-by-Linear Association	.00	1	.99		
	N of Valid Cases	631				
North Harris	Pearson Chi-Square	1.37[e]	1	.24		
	Continuity Correction[b]	.85	1	.35		
	Likelihood Ratio	1.56	1	.21		
	Fisher's Exact Test				.32	.17
	Linear-by-Linear Association	1.368	1	.242		
	N of Valid Cases	629				
Tomball	Pearson Chi-Square	2.78[f]	1	.09		
	Continuity Correction[b]	1.55	1	.21		
	Likelihood Ratio	4.67	1	.03		
	Fisher's Exact Test				.19	.09
	Linear-by-Linear Association	2.78	1	.09		
	N of Valid Cases	535				

There was no statistical significance for developmental students within any of the colleges within Lone Star College System when asked if they were enrolled in an organized “learning community”(two or more courses that a group of students take together).

Table 87.

Categorical Data- Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	Academic advising/planning	Yes	Count	228	108	336
			% within Developmental Student	66.7%	76.1%	69.4%
		No	Count	114	34	148
			% within Developmental Student	33.3%	23.9%	30.6%
	Total		Count	342	142	484
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Academic advising/planning	Yes	Count	283	92	375
			% within Developmental Student	72.6%	75.4%	73.2%
		No	Count	107	30	137
			% within Developmental Student	27.4%	24.6%	26.8%
	Total		Count	390	122	512
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Academic advising/planning	Yes	Count	369	154	523
			% within Developmental Student	77.4%	83.7%	79.1%
		No	Count	108	30	138
			% within Developmental Student	22.6%	16.3%	20.9%
	Total		Count	477	184	661
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Academic advising/planning	Yes	Count	369	102	471
			% within Developmental Student	69.6%	78.5%	71.4%
		No	Count	161	28	189
			% within Developmental Student	30.4%	21.5%	28.6%
	Total		Count	530	130	660
			% within Developmental Student	100.0%	100.0%	100.0%

Tomball	Academic advising/planning	Yes	Count	282	119	401
			% within Developmental Student	67.8%	73.0%	69.3%
		No	Count	134	44	178
			% within Developmental Student	32.2%	27.0%	30.7%
	Total		Count	416	163	579
			% within Developmental Student	100.0%	100.0%	100.0%

Table 88.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	4.16[a]	1	.04		
	Continuity Correction[b]	3.73	1	.05		
	Likelihood Ratio	4.28	1	.03		
	Fisher's Exact Test				.05	.02
	Linear-by-Linear Association	4.15	1	.04		
	N of Valid Cases	484				
Kingwood	Pearson Chi-Square	.38[c]	1	.53		
	Continuity Correction[b]	.25	1	.61		
	Likelihood Ratio	.38	1	.53		
	Fisher's Exact Test				.56	.31
	Linear-by-Linear Association	.38	1	.53		
	N of Valid Cases	512				
Montgomery	Pearson Chi-Square	3.22[d]	1	.07		
	Continuity Correction[b]	2.85	1	.09		
	Likelihood Ratio	3.35	1	.06		
	Fisher's Exact Test				.08	.04
	Linear-by-Linear Association	3.22	1	.07		
	N of Valid Cases	661				
North Harris	Pearson Chi-Square	3.99[e]	1	.04		
	Continuity Correction[b]	3.57	1	.05		
	Likelihood Ratio	4.16	1	.04		
	Fisher's Exact Test				.05	.02
	Linear-by-Linear Association	3.98	1	.04		
	N of Valid Cases	660				
Tomball	Pearson Chi-Square	1.49[f]	1	.22		
	Continuity Correction[b]	1.26	1	.26		
	Likelihood Ratio	1.52	1	.21		
	Fisher's Exact Test				.23	.13
	Linear-by-Linear Association	1.49	1	.22		
	N of Valid Cases	579				

There is no statistical significance for developmental students when asked about academic advising/planning.

Table 89.

Categorical Data- Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	Career Counseling	Yes	Count	165	67	232
			% within Developmental Student	48.2%	47.5%	48.0%
		No	Count	177	74	251
			% within Developmental Student	51.8%	52.5%	52.0%
	Total		Count	342	141	483
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Career Counseling	Yes	Count	189	53	242
			% within Developmental Student	48.6%	43.8%	47.5%
		No	Count	200	68	268
			% within Developmental Student	51.4%	56.2%	52.5%
	Total		Count	389	121	510
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Career Counseling	Yes	Count	315	115	430
			% within Developmental Student	66.3%	62.5%	65.3%
		No	Count	160	69	229
			% within Developmental Student	33.7%	37.5%	34.7%
	Total		Count	475	184	659
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Career Counseling	Yes	Count	237	72	309
			% within Developmental Student	44.8%	55.4%	46.9%
		No	Count	292	58	350
			% within Developmental Student	55.2%	44.6%	53.1%
	Total		Count	529	130	659
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	Career Counseling	Yes	Count	177	63	240
			% within Developmental Student	42.8%	39.4%	41.8%
		No	Count	237	97	334
			% within Developmental Student	57.2%	60.6%	58.2%
	Total		Count	414	160	574
			% within Developmental Student	100.0%	100.0%	100.0%

Table 90.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	.02[a]	1	.88		
	Continuity Correction[b]	.00	1	.96		
	Likelihood Ratio	.02	1	.88		
	Fisher's Exact Test				.92	.48
	Linear-by-Linear Association	.02	1	.88		
	N of Valid Cases	483				
Kingwood	Pearson Chi-Square	.84[c]	1	.35		
	Continuity Correction[b]	.66	1	.41		
	Likelihood Ratio	.84	1	.35		
	Fisher's Exact Test				.40	.20
	Linear-by-Linear Association	.84	1	.35		
	N of Valid Cases	510				
Montgomery	Pearson Chi-Square	.85[d]	1	.35		
	Continuity Correction[b]	.69	1	.40		
	Likelihood Ratio	.84	1	.35		
	Fisher's Exact Test				.36	.20
	Linear-by-Linear Association	.85	1	.35		
	N of Valid Cases	659				
North Harris	Pearson Chi-Square	4.69[e]	1	.03		
	Continuity Correction[b]	4.27	1	.03		
	Likelihood Ratio	4.68	1	.03		
	Fisher's Exact Test				.03*	.01
	Linear-by-Linear Association	4.68	1	.03		
	N of Valid Cases	659				
Tomball	Pearson Chi-Square	.54[f]	1	.46		
	Continuity Correction[b]	.41	1	.52		
	Likelihood Ratio	.54	1	.46		
	Fisher's Exact Test				.50	.26
	Linear-by-Linear Association	.54	1	.46		
	N of Valid Cases	574				

Cross-campus there is no statistical significance for participation in career counseling. Developmental students at Lone Star College North Harris are the only students more likely to report they participate in career counseling (44.8% developmental and 55.4% non-developmental) within the system.

Table 91.

Categorical Job Placement Assistance Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student Developmental	NonDevelopmental	Total
Cy Fair	Job placement assistance	Yes	Count	80	24	104
			% within Developmental Student	23.4%	17.0%	21.5%
		No	Count	262	117	379
			% within Developmental Student	76.6%	83.0%	78.5%
	Total		Count	342	141	483
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Job placement assistance	Yes	Count	92	25	117
			% within Developmental Student	24.0%	20.7%	23.2%
		No	Count	292	96	388
			% within Developmental Student	76.0%	79.3%	76.8%
	Total		Count	384	121	505
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Job placement assistance	Yes	Count	161	67	228
			% within Developmental Student	34.0%	36.6%	34.7%
		No	Count	313	116	429
			% within Developmental Student	66.0%	63.4%	65.3%
	Total		Count	474	183	657
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Job placement assistance	Yes	Count	150	37	187
			% within Developmental Student	28.3%	28.7%	28.4%
		No	Count	380	92	472
			% within Developmental Student	71.7%	71.3%	71.6%
	Total		Count	530	129	659
			% within Developmental Student	100.0%	100.0%	100.0%

Tomball	Job placement assistance	Yes	Count	115	31	146
			% within Developmental Student	27.8%	19.3%	25.4%
		No	Count	299	130	429
			% within Developmental Student	72.2%	80.7%	74.6%
	Total		Count	414	161	575
			% within Developmental Student	100.0%	100.0%	100.0%

Table 92.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	2.39[a]	1	.12		
	Continuity Correction[b]	2.03	1	.15		
	Likelihood Ratio	2.48	1	.11		
	Fisher's Exact Test				.14	.07
	Linear-by-Linear Association	2.39	1	.12		
	N of Valid Cases	483				
Kingwood	Pearson Chi-Square	.56[c]	1	.45		
	Continuity Correction[b]	.39	1	.53		
	Likelihood Ratio	.57	1	.44		
	Fisher's Exact Test				.53	.26
	Linear-by-Linear Association	.56	1	.45		
	N of Valid Cases	505				
Montgomery	Pearson Chi-Square	.40[d]	1	.52		
	Continuity Correction[b]	.29	1	.58		
	Likelihood Ratio	.40	1	.52		
	Fisher's Exact Test				.52	.29
	Linear-by-Linear Association	.40	1	.52		
	N of Valid Cases	657				
North Harris	Pearson Chi-Square	.00[e]	1	.93		
	Continuity Correction[b]	.00	1	1.00		
	Likelihood Ratio	.00	1	.93		
	Fisher's Exact Test				.91	.50
	Linear-by-Linear Association	.00	1	.93		
	N of Valid Cases	659				
Tomball	Pearson Chi-Square	4.44[f]	1	.03		
	Continuity Correction[b]	4.00	1	.04		
	Likelihood Ratio	4.61	1	.03		
	Fisher's Exact Test				.04*	.02
	Linear-by-Linear Association	4.43	1	.03		
	N of Valid Cases	575				

Cross-campus there is no significance in job placement assistance. Lone Star College Tomball developmental students are the only students more likely to report significance in job placement assistance. 27.8% developmental and 19.3% non-developmental students responded respectively. The Chi-Square Test indicates significance at .04 (less than .05).

Table 93.

Categorical Face-to-Face Tutoring Institutional Practices

Crosstab

Campus				Developmental Student		
				Developmental	NonDevelopmental	Total
Cy Fair	Face to face tutoring	Yes	Count	259	102	361
			% within Developmental Student	75.7%	72.9%	74.9%
		Once	Count	83	38	121
			% within Developmental Student	24.3%	27.1%	25.1%
	Total		Count	342	140	482
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Face to face tutoring	Yes	Count	307	95	402
			% within Developmental Student	79.3%	79.2%	79.3%
		Once	Count	80	25	105
			% within Developmental Student	20.7%	20.8%	20.7%
	Total		Count	387	120	507
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Face to face tutoring	Yes	Count	395	164	559
			% within Developmental Student	83.3%	89.1%	85.0%
		Once	Count	79	20	99
			% within Developmental Student	16.7%	10.9%	15.0%
	Total		Count	474	184	658
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Face to face tutoring	Yes	Count	404	101	505
			% within Developmental Student	76.4%	77.7%	76.6%
		Once	Count	125	29	154
			% within Developmental Student	23.6%	22.3%	23.4%
	Total		Count	529	130	659
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	Face to face tutoring	Yes	Count	313	132	445
			% within Developmental Student	76.7%	82.0%	78.2%
		Once	Count	95	29	124
			% within Developmental Student	23.3%	18.0%	21.8%
	Total		Count	408	161	569
			% within Developmental Student	100.0%	100.0%	100.0%

Table 94.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	.43[a]	1	.50		
	Continuity Correction[b]	.29	1	.58		
	Likelihood Ratio	.43	1	.51		
	Fisher's Exact Test				.56	.29
	Linear-by-Linear Association	.43	1	.50		
	N of Valid Cases	482				
Kingwood	Pearson Chi-Square	.00[c]	1	.97		
	Continuity Correction[b]	.00	1	1.00		
	Likelihood Ratio	.00	1	.97		
	Fisher's Exact Test				1.00	.53
	Linear-by-Linear Association	.00	1	.97		
	N of Valid Cases	507				
Montgomery	Pearson Chi-Square	3.48[d]	1	.06		
	Continuity Correction[b]	3.04	1	.08		
	Likelihood Ratio	3.68	1	.05		
	Fisher's Exact Test				.06	.03
	Linear-by-Linear Association	3.48	1	.06		
	N of Valid Cases	658				
North Harris	Pearson Chi-Square	.10[e]	1	.75		
	Continuity Correction[b]	.04	1	.83		
	Likelihood Ratio	.10	1	.74		
	Fisher's Exact Test				.81	.42
	Linear-by-Linear Association	.10	1	.75		
	N of Valid Cases	659				
Tomball	Pearson Chi-Square	1.88[f]	1	.17		
	Continuity Correction[b]	1.58	1	.20		
	Likelihood Ratio	1.93	1	.16		
	Fisher's Exact Test				.17	.10
	Linear-by-Linear Association	1.87	1	.17		
	N of Valid Cases	569				

There is no statistical significance in face-to-face tutoring among developmental students at any of the five colleges within Lone Star College System. The Chi-Square Test indicates no significance.

Table 95.

Categorical Data - Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student: Developmental	Developmental Student: NonDevelopmental	Total
Cy Fair	Online tutor	Yes	Count	92	35	127
			% within Developmental Student	26.9%	24.6%	26.2%
		No	Count	250	107	357
			% within Developmental Student	73.1%	75.4%	73.8%
	Total		Count	342	142	484
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Online tutor	Yes	Count	73	32	105
			% within Developmental Student	19.0%	26.4%	20.8%
		No	Count	312	89	401
			% within Developmental Student	81.0%	73.6%	79.2%
	Total		Count	385	121	506
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Online tutor	Yes	Count	137	60	197
			% within Developmental Student	29.1%	32.8%	30.1%
		No	Count	334	123	457
			% within Developmental Student	70.9%	67.2%	69.9%
	Total		Count	471	183	654
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Online tutor	Yes	Count	123	35	158
			% within Developmental Student	23.6%	27.1%	24.3%
		No	Count	399	94	493
			% within Developmental Student	76.4%	72.9%	75.7%
	Total		Count	522	129	651
			% within Developmental Student	100.0%	100.0%	100.0%
Tomball	Online tutor	Yes	Count	105	36	141
			% within Developmental Student	25.5%	22.5%	24.7%
		No	Count	306	124	430
			% within Developmental Student	74.5%	77.5%	75.3%
	Total		Count	411	160	571
			% within Developmental Student	100.0%	100.0%	100.0%

Table 96.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	.26[a]	1	.60		
	Continuity Correction[b]	.16	1	.69		
	Likelihood Ratio	.26	1	.60		
	Fisher's Exact Test				.65	.34
	Linear-by-Linear Association	.26	1	.60		
	N of Valid Cases	484				
Kingwood	Pearson Chi-Square	3.13[c]	1	.07		
	Continuity Correction[b]	2.69	1	.10		
	Likelihood Ratio	3.01	1	.08		
	Fisher's Exact Test				.09	.05
	Linear-by-Linear Association	3.131	1	.07		
	N of Valid Cases	506				
Montgomery	Pearson Chi-Square	.85[d]	1	.35		
	Continuity Correction[b]	.69	1	.40		
	Likelihood Ratio	.84	1	.35		
	Fisher's Exact Test				.39	.20
	Linear-by-Linear Association	.85	1	.35		
	N of Valid Cases	654				
North Harris	Pearson Chi-Square	.71[e]	1	.39		
	Continuity Correction[b]	.53	1	.46		
	Likelihood Ratio	.70	1	.40		
	Fisher's Exact Test				.42	.23
	Linear-by-Linear Association	.71	1	.39		
	N of Valid Cases	651				
Tomball	Pearson Chi-Square	.57[f]	1	.44		
	Continuity Correction[b]	.42	1	.51		
	Likelihood Ratio	.58	1	.44		
	Fisher's Exact Test				.51	.25
	Linear-by-Linear Association	.57	1	.44		
	N of Valid Cases	571				

There is no statistical significance in online tutoring as an administrative practice for developmental students within all colleges in Lone Star College System.

Table 97.

Categorical Data -Research Question #2 Institutional Practices

Crosstab

Campus				Developmental Student: Developmental	Developmental Student: NonDevelopmental	Total
Cy Fair	Assigned person for needed info	Yes	Count	52	8	60
			% within Developmental Student	15.5%	5.7%	12.6%
		No	Count	283	132	415
			% within Developmental Student	84.5%	94.3%	87.4%
	Total		Count	335	140	475
			% within Developmental Student	100.0%	100.0%	100.0%
Kingwood	Assigned person for needed info	Yes	Count	128	17	145
			% within Developmental Student	33.8%	14.3%	29.1%
		No	Count	251	102	353
			% within Developmental Student	66.2%	85.7%	70.9%
	Total		Count	379	119	498
			% within Developmental Student	100.0%	100.0%	100.0%
Montgomery	Assigned person for needed info	Yes	Count	55	19	74
			% within Developmental Student	11.9%	10.6%	11.5%
		No	Count	409	161	570
			% within Developmental Student	88.1%	89.4%	88.5%
	Total		Count	464	180	644
			% within Developmental Student	100.0%	100.0%	100.0%
North Harris	Assigned person for needed info	Yes	Count	181	35	216
			% within Developmental Student	34.9%	28.5%	33.6%
		No	Count	338	88	426
			% within Developmental Student	65.1%	71.5%	66.4%
	Total		Count	519	123	642
			% within Developmental Student	100.0%	100.0%	100.0%

Tomball	Assigned person for needed info	Yes	Count	82	14	96
			% within Developmental Student	20.4%	8.6%	17.1%
		No	Count	319	148	467
			% within Developmental Student	79.6%	91.4%	82.9%
	Total		Count	401	162	563
			% within Developmental Student	100.0%	100.0%	100.0%

Table 98.

Chi-Square Tests

Chi-Square Tests

Campus		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Cy Fair	Pearson Chi-Square	8.60[a]	1	.00		
	Continuity Correction[b]	7.74	1	.00		
	Likelihood Ratio	9.81	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	8.58	1	.00		
	N of Valid Cases	475				
Kingwood	Pearson Chi-Square	16.664[c]	1	.000		
	Continuity Correction[b]	15.733	1	.000		
	Likelihood Ratio	18.415	1	.000		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	16.631	1	.000		
	N of Valid Cases	498				
Montgomery	Pearson Chi-Square	.21[d]	1	.64		
	Continuity Correction[b]	.10	1	.74		
	Likelihood Ratio	.21	1	.64		
	Fisher's Exact Test				.68	.37
	Linear-by-Linear Association	.21	1	.64		
	N of Valid Cases	644				
North Harris	Pearson Chi-Square	1.83[e]	1	.17		
	Continuity Correction[b]	1.55	1	.21		
	Likelihood Ratio	1.87	1	.17		
	Fisher's Exact Test				.20	.10
	Linear-by-Linear Association	1.83	1	.17		
	N of Valid Cases	642				
Tomball	Pearson Chi-Square	11.3[f]	1	.00		
	Continuity Correction[b]	10.5	1	.00		
	Likelihood Ratio	12.6	1	.00		
	Fisher's Exact Test				.00*	.00
	Linear-by-Linear Association	11.3	1	.00		
	N of Valid Cases	563				

Developmental students within all colleges in Lone Star College System are more likely to report a specific person assigned to them so they can see him/her each time they needed information or assistance at Lone Star College Cyfair (15.5% developmental and 5.7% non-developmental), Lone Star College Kingwood (33.8% developmental and 14.3% non-developmental) and Lone Star College Tomball (20.4% developmental and 8.6% non-developmental). The Chi-Square Test validates the significance. There was no significance for developmental students at Lone Star College Montgomery and Lone Star College North Harris.

Table 99.

Cross-campus Comparison Early Connections

CROSS-CAMPUS COMPARISON FOR EARLY CONNECTIONS

		Cyfair	Kingwood	Montgomery	NHarris	Tomball
Early Connections	Developmental	NS	49.27	NS	NS	44.99
	Non Dev	NS	42.00	NS	NS	36.26
Felt Welcomed 1st visit	Developmental	NS	NS	NS	NS	3.92
	Non Dev	NS	NS	NS	NS	3.71
College gave info about financial assistance	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
Staff helped determine qualification for financial aid	Developmental	NS	2.84	NS	NS	NS
	Non Dev	NS	2.58	NS	NS	NS
Staff learned my name	Developmental	NS	NS	NS	NS	2.94
	Non Dev	NS	NS	NS	NS	2.67
Assigned person for needed information	Developmental	1.84	1.66	NS	NS	1.80
	Non Dev	1.94	1.86	NS	NS	1.91

Lone Star College Kingwood and Lone Star College Tomball developmental students are more likely to report Early Connections with Lone Star College Kingwood

having the highest significance in the benchmark than Lone Star Tomball developmental students. Lone Star College Tomball developmental students are more likely to report they felt welcomed on the first visit. Lone Star College Kingwood developmental students are more likely to report that staff helped to determine qualifications for financial aid. Lone Star College Tomball non-developmental students are more likely to report they were assigned a person for needed information.

Lone Star College Cyfair, Lone Star College Kingwood, and Lone Star Tomball non-developmental students are more likely to report they were assigned a person for needed information.

Table 100.

Cross-Campus Comparison High Expectations and Aspirations

		Cyfair	Kingwood	Montgomery	NHarris	Tomball
High Expectations	Developmental	NS	NS	NS	51.49	NS
	Non Dev	NS	NS	NS	51.31	NS
Instructors want	Developmental	NS	NS	NS	4.31	4.31
me to succeed	Non Dev	NS	NS	NS	4.19	4.13
Motivation for	Developmental	4.53	NS	NS	NS	NS
success	Non Dev	4.38	NS	NS	NS	NS
Prepared	Developmental	NS	NS	NS	NS	NS
academically to	Non Dev	NS	NS	NS	NS	NS
succeed						
Turn in	Developmental	1.40	1.39	1.46	NS	NS
assignments late	Non Dev	1.28	1.19	1.33	NS	NS
Not turn in	Developmental	NS	NS	NS	NS	NS
assignment	Non Dev	NS	NS	NS	NS	NS
Come to class incomplete readings/assignment	Developmental	1.60	NS	1.57	.77	1.62
	Non Dev	1.85	NS	1.87	.93	1.87
Skip Class	Developmental	NS	NS	1.26	.58	1.27
	Non Dev	NS	NS	1.27	.55	1.38

Lone Star College North Harris developmental students are more likely to report high expectations and aspirations than non-developmental students. Lone Star College North Harris and Lone Star College Tomball developmental students are more likely to report their instructors want to see them succeed.

Lone Star College Cyfair developmental students are more likely to report they have the motivation for success. Lone Star College developmental students at Cyfair, Lone Star College Kingwood, and Lone Star College Montgomery are more likely to report they turn in assignments late. Non-developmental students at Lone Star College

Cyfair, Lone Star College Montgomery, Lone Star College North Harris and Lone Star College Tomball are more likely to report they come to class with incomplete readings and assignments.

Non-developmental students at Lone Star College Montgomery and Lone Star College Tomball are more likely to report they skip class. Developmental students at Lone Star College North Harris reported they are more likely to report they skip class. Table 101.

Cross-Campus Comparison Academic Plan

		Cyfair	Kingwood	Montgomery	NHarris	Tomball
Academic Plan	Developmental	NS	NS	50.44	NS	51.30
	Non Dev	NS	NS	47.06	NS	46.84
Met with advisor at convenient times	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
Advisor helped select course of study/prg/major	Developmental	3.28	NS	NS	NS	NS
	Non Dev	3.20	NS	NS	NS	NS
Advisor helped set academic goals and plan to achieve	Developmental	NS	NS	3.09	NS	3.18
	Non Dev	NS	NS	2.96	NS	2.84
Advisor helped identify courses needed first semester	Developmental	NS	3.99	3.87	NS	3.87
	Non Dev	NS	3.76	3.64	NS	3.59
Staff discussed commitments outside of school	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS

Lone Star College Montgomery and Lone Star College Tomball developmental students are more likely to report they have an Academic Plan. Lone Star College Cyfair developmental students are more likely to report that an advisor helped select course of study, program, or major. Lone Star College Montgomery and Lone Star

College Tomball developmental students are more likely to report an advisor helped set academic goals and a plan to achieve them. Development students at Lone Star College Kingwood, Lone Star College Montgomery and Lone Star College Tomball are more likely to report an advisor helped identify courses needed their first semester.

Table 102.

Cross-Campus Comparison Effective Track to College Readiness

		Cyfair	Kingwood	Montgomery	NHarris	Tomball
Effective track to college readiness	Developmental	56.58	55.13	56.52	58.26	57.15
	Non Dev	34.41	32.75	32.54	42.41	32.30
Before register required placement test	Developmental	1.05	1.07	1.07	1.09	1.07
	Non Dev	1.25	1.23	1.29	1.21	1.28
Took placement test	Developmental	1.04	1.04	1.04	1.05	1.04
	Non Dev	1.14	1.14	1.17	1.18	1.13
This college required me to enroll in classes indicated by my placement test scores during my first semester/quarter.	Developmental	1.09	1.07	1.09	1.07	1.09
	Non Dev	1.62	1.67	1.63	1.56	1.55
Within class or another experience at this college I learned to improve my study skills	Developmental	3.97	3.89	4.0	NS	4.01
	Non Dev	3.75	3.66	3.76	NS	3.65
Within class or another experience at this college I learned to understand my academic strengths/weakness	Developmental	3.86	NS	3.90	NS	3.87
	Non Dev	3.64	NS	3.65	NS	3.52
Within class or another experience at this college I learned skills and strategies to improve test taking ability	Developmental	3.63	NS	3.62	NS	3.66
	Non Dev	3.37	NS	3.37	NS	3.20

Cross-campus comparison for Effective Track to College Readiness is more likely to be reported by developmental students at all five colleges within Lone Star College System. Non-developmental students at all five colleges within Lone Star College System are likely to report before registration they were required to take a placement test and took a placement test. Developmental students at Lone Star College

Cyfair, Lone Star College Kingwood, Lone Star College Montgomery, and Lone Star Tomball are more likely to report within class or another experience at this college they learned to improve their study skills.

Lone Star College Cyfair, Lone Star College Montgomery, and Lone Star College Tomball developmental students are more likely to report within class or another experience at their college they learned to understand their academic strengths/weakness. Developmental students at Lone Star College Cyfair, Lone Star College Montgomery and Lone Star Tomball are more likely to report within class or another experience at their college they learned skills and strategies to improve test-taking ability.

Effective Track to College Readiness appears to be the most significant for developmental students within this system. This benchmark is significant as it uses system wide institutional practices that influence academic success for developmental students. Enforcing the practice of taking placement tests prior to enrolling classes reveals the appropriateness or inappropriateness of college level courses for first time in college students.

Implications For Practice

The significance in the benchmark Effective Track to College Readiness implies developmental students are more likely to report their success was influenced by the mandated institutional practices prior to enrollment in college level classes. First time in college students may or may not be aware of their academic deficiencies. The eagerness

of taking college level classes my override their aptitude in that course. Students who take placement tests prior to enrollment in college classes have the opportunity to test their knowledge in the material prior to taking the course. Review of the outcomes of the placement exam with a college representative allows for the one on one advisement that developmental students deem as an institutional practice that leads to their success. This benchmark implies that it is a necessary practice within 2-year institutions for developmental students.

The benchmark Effective Track to College Readiness indicates that students enrolled in classes indicated by the placement test during their first semester/quarter provides an opportunity for students to converge over the skills in which they are deficient. Developmental students were statistically significant when reporting that within class or another experience at the college they learned to improve their study skills. This verifies that first time in college developmental students are not prepared for college level courses and have not mastered study skills that will lead them to success in college. Developmental students significantly indicated that they learned skills and strategies to improve test-taking ability. For administrators, this indicates that first time in college developmental students have not developed strong skills or strategies to improve test taking ability. Administrators at 2-year institutions should continue to require developmental students to enroll in classes indicated by their placement test scores during their first semester/quarter. This institutional practice will lead to success of developmental students.

Table 103.

Cross-Campus Comparison Engaged Learning

		Cyfair	Kingwood	Montgomery	NHarris	Tomball
Engaged learning	Developmental	56.58	55.13	55.03	58.26	56.52
	Non Dev	34.41	32.75	24.19	42.41	32.54
Ask questions in class/contribute to class discussions	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
Prepare two drafts of a paper/assignment before turning it in	Developmental	2.23	NS	2.12	2.29	2.16
	Non Dev	2.02	NS	1.91	1.90	1.91
Participates in supplemental instruction	Developmental	1.45	NS	NS	NS	NS
	Non Dev	1.28	NS	NS	NS	NS
Works with other students on projects/assignment in class	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
Works with students outside class on projects/assignments	Developmental	NS	NS	2.32	NS	NS
	Non Dev	NS	NS	2.52	NS	NS
Participates in required study group outside of class	Developmental	NS	NS	1.22	NS	1.25
	Non Dev	NS	NS	1.25	NS	1.19
Participates in student initiated study group out of class (not required)	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
Uses electronic tools to communicate with students about coursework	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
Uses electronic tools to communicate with instructors about coursework	Developmental	NS	2.03	NS	NS	NS
	Non Dev	NS	2.14	NS	NS	NS
Discussed a grade/assignment with instructor	Developmental	2.03	NS	NS	NS	2.00
	Non Dev	1.79	NS	NS	NS	1.78
Receive prompt or written feedback from instructors on your performance.	Developmental	NS	NS	NS	NS	2.25
	Non Dev	NS	NS	NS	NS	2.12

Discussed ideas from readings/class with instructor out of class	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
Frequency: Face-to-face tutoring	Developmental	NS	NS	NS	NS	1.25
	Non Dev	NS	NS	NS	NS	1.24
Frequency: Use writing, math, or other skill	Developmental	1.91	NS	NS	1.94	1.93
	Non Dev	1.45	NS	NS	1.57	1.45
Use computer lab	Developmental	2.49	NS	1.05	2.41	2.17
	Non Dev	2.03	NS	.96	2.06	1.80
Ask for help from an instructor regarding questions/problems related to class	Developmental	2.29	NS	2.33	NS	2.34
	Non Dev	2.09	NS	2.28	NS	2.17

Cross-comparison for engaged learning is more likely to be reported by developmental students at the five colleges within the Lone Star College System. Developmental students at Lone Star College Cyfair, Lone Star College Montgomery, Lone Star College North Harris, and Lone Star College Tomball are more likely to report they prepare two drafts of a paper/assignment before turning it in. Developmental students at Lone Star College Cyfair are more likely to report participation in supplemental instruction.

Lone Star College Montgomery developmental students are more likely to report they work with students on projects/assignments in class. Lone Star College Montgomery developmental students and Lone Star College Tomball non-developmental students are more likely to report they participate in required study groups outside of class.

Lone Star College Kingwood's non-developmental students are more likely to report they use electronic tools to communicate with instructors about coursework. Lone Star College Cyfair and Lone Star College Tomball developmental students are more likely to report they discussed a grade/assignment with an instructor.

Lone Star College Tomball developmental students are more likely to receive prompt or written feedback from instructors on their performance. At Lone Star College Cyfair, Lone Star College North Harris, and Lone Star College Tomball developmental students are more likely to use writing, math, or other skills. Developmental students at Lone Star College Cyfair, Lone Star College Montgomery, Lone Star College North Harris, and Lone Star College Tomball are more likely to report that they use the computer lab.

At Lone Star Colleges' Cyfair, Montgomery, and Tomball, developmental students are more likely to report they ask for help from an instructor regarding questions/problems related to the class.

Implications For Practice

The benchmark Engaged Learning was statistically significant for developmental students, which implies including social skills with academia within the first semester in college is significant to developmental students. Developmental students were more likely to engage in the course when they were allowed time to discuss grades with the instructor or ask an instructor for help regarding readings or assignments. This implies that the instructor is a fulltime employee, has adequate office space to meet with the

student, and has office hours that are conducive to the students work schedule, etc. If the 2-year institution has a ratio of more adjunct faculty teaching courses than full time faculty they may want to consider providing adjunct meeting space. This would provide adjunct instructors adequate space to meet with their students to discuss grades, course content, etc. In addition, administrators may want to provide adjunct stipends for the additional time needed to provide the one-on-one additional out of class time needed with students.

The Engaged Learning benchmark also implies that developmental students may require additional opportunities to engage in their writing assignments. Developmental students are more likely to report high significance when they prepare two drafts of a paper/assignment before turning it in. Administrators and instructors may want to enforce practice writing assignments for their developmental students enrolled in remedial writing courses. Allowing the student two attempts to write and re-write an assignment provides the student with the fundamental principles needed for a successful writing assignment. This practice allows an opportunity to turn in a polished version of the assignment.

Table 104.

Cross-Campus Comparison Academic and Social Support Network

		Cyfair	Kingwood	Montgomery	NHarris	Tomball
Academic and social support network	Developmental	52.83	NS	NS	NS	NS
	Non Dev	45.64	NS	NS	NS	NS
Instructors explained academic and student support services	Developmental	3.89	NS	NS	3.79	NS
	Non Dev	3.54	NS	NS	3.57	NS
Instructors explained grade policies	Developmental	4.49	NS	NS	NS	NS
	Non Dev	4.31	NS	NS	NS	NS
Instructors explained syllabi	Developmental	4.28	NS	NS	NS	NS
	Non Dev	4.23	NS	NS	NS	NS
Knew how to get in touch with instructor outside of class	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
1 other student learned my name	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
1 Instructor learned my name	Developmental	4.33	NS	NS	4.20	NS
	Non Dev	4.04	NS	NS	4.38	NS
I learned 1 students name in most of my classes	Developmental	4.24	4.16	NS	NS	NS
	Non Dev	4.06	4.25	NS	NS	NS

Lone Star College Cyfair developmental students are more likely to report academic and social support network. Lone Star College Cyfair and Lone Star College North Harris developmental students are more likely to report that instructors explained academic and student support services. Developmental students at Lone Star College Cyfair are more likely to report instructors explained grade policies. Lone Star College Cyfair developmental students are more likely to report instructors explained the syllabi. Lone Star College Cyfair developmental students and Lone Star College North Harris non-developmental students are more likely to report that one instructor learned their name. The developmental students at Lone Star College Cyfair and non-developmental students at Lone Star College Kingwood are more likely to report they learned one students name in most of their classes.

Implications For Practice

Academic and Social Support Network for development students within this System implies that they are more likely to be engaged when instructors and students play a bigger role in their support network. For example, when an instructor explains an academic support network that may improve the students' performance within the class, the student may be more likely to utilize it. Also, instructors that make special efforts to learn the names of their students provide students with value and importance to the class. Calling a student by their first name is a reminder that you know and care about who they are. Lastly, this benchmark reiterates the importance of students knowing how to get in contact with their professors outside of class. Perhaps social networking contacts

can be an addition to the syllabus. Instead of the traditional listing of the name, office number, and office hours, professors can list their Skype address, Twitter accounts or instructional Facebook page for the course.

Table 105.

Cross-Campus Benchmark for Engagement Significance for Developmental and Non-Developmental Students

SENSE Benchmark	LSC Cyfair	LSC Kingwood	LSC Montgomery	LSC North Harris	LSC Tomball
Early Connections	No Significance	**Significance (Dev.)**	No Significance	No Significance	**Significance (Dev.)**
High Expectations & Aspirations	No Significance	No Significance	No Significance	**Significance (Dev.)**	No Significance
Academic Plan	No Significance	No Significance	**Significance (Dev.)**	No Significance	**Significance (Dev.)**
Effective Track to College Readiness	**Significance (Dev.)**	**Significance (Dev.)**	**Significance (Dev.)**	**Significance (Dev.)**	**Significance (Dev.)**
Engaged Learning	**Significance (Dev.)**	**Significance (Dev.)**	**Significance (Dev.)**	**Significance (Dev.)**	**Significance (Dev.)**
Academic & Social Network	**Significance (Dev.)**	No Significance	No Significance	No Significance	No Significance

Findings

The findings of research question one reveal first time in college developmental students in general had significance in the 2009 SENSE benchmarks when compared to non-developmental students (see table 105). Overall developmental students reflected statistical significance in Early Connections, High Expectations and Aspirations, Clear Academic Plan and Pathway, Effective Track to College Readiness, Engaged Learning, and Academic and Social Support Network.

Non-developmental student within the Lone Star College System are more likely to report significance in items under the benchmarks Early Connections, High Expectations and Aspirations, and Engaged.

Table 105 indicates that developmental students reported significance within a minimal of three benchmarks with LSC Tomball with the most significance in four of the six benchmarks. As separate colleges under one system, each college may have created support programs academically and socially to engage and retain their students. For example, LSC North Harris is a Hispanic Serving Institution (HSI) and may have minority initiatives that tie in Hispanic males, which would positively reflect engagement of that population.

Table 106.

Cross-Campus Comparison For Institutional Practices

		Cyfair	Kingwood	Montgomery	NHarris	Tomball
Felt welcomed 1st visit	Developmental	NS	NS	NS	NS	3.92
	Non Dev	NS	NS	NS	NS	3.71
Instructor wants me to succeed	Developmental	NS	NS	NS	NS	4.31
	Non Dev	NS	NS	NS	NS	4.13
Met with an advisor at convenient times	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
An advisor helped me to select a course of study, program, or major	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
Advisor helped set academic goals	Developmental	NS	NS	NS	NS	3.18
	Non Dev	NS	NS	NS	NS	2.84
Advisor helped identify courses needed	Developmental	3.55	3.99	NS	NS	3.87
	Non Dev	3.20	3.76	NS	NS	3.59
Staff discussed commitments outside of school	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
All instructors had activities to introduce students to one another	Developmental	3.50	3.22	NS	3.26	3.31
	Non Dev	3.07	2.94	NS	2.81	2.89
Instructors explained academic/student support services	Developmental	3.89	NS	NS	NS	NS
	Non Dev	3.54	NS	NS	NS	NS

In research question two, the institutional practices that were most statistically significant to developmental students cross-campus are all instructors had activities to introduce students to one another (except LSC Montgomery) and advisors helped identify courses needed (except LSC North Harris and LSC Montgmery).

There was not statistical significance at any of the five colleges within Lone Star College System in the following areas: Met with an advisor at convenient time, an

advisor helped me to select a course of study, program or major, and staff discussed commitments outside of school.

Table 107

Cross-Campus Comparison For Institutional Practices

		Cyfair	Kingwood	Montgomery	NHarris	Tomball
Staff learned my name	Developmental	NS	NS	NS	NS	2.94
	Non Dev	NS	NS	NS	NS	2.67
Students learned my name	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS
1 instructor learned my name	Developmental	4.33	NS	NS	4.20	NS
	Non Dev	4.04	NS	NS	4.38	NS
Participates in supplemental instruction	Developmental	1.45	NS	NS	NS	1.50
	Non Dev	1.28	NS	NS	NS	1.26
Discussed a grade/ assignment with instructor	Developmental	2.03	1.90	NS	NS	2.0
	Non Dev	1.79	1.70	NS	NS	1.65
Received prompt written/oral/feedback from instructor on performance	Developmental	NS	NS	NS	NS	NS
	Non Dev	NS	NS	NS	NS	NS

Cross-campus developmental students within Lone Star College System are more likely to report that they discussed a grade/assignment with an instructor, participated in supplemental instruction and one instructor learned my name. Non-developmental students at Lone Star College North Harris are more likely to report that one student learned their name.

Lone Star College Cyfair and Lone Star College Tomball developmental students reported that they are more likely to participate in supplemental instruction. Lone Star College developmental students indicated significance in discussed a grade or assignment with an instructor.

There was no statistical significance for developmental or non-developmental students in students learned my name and received prompt written, oral feedback from instructors on performance.

Table 108.

Cross-Campus Comparison of Institutional Practices within Lone Star College System (categorical)

Institutional Practice/ Academic Support Initiative	**Cyfair**	**Kingwood**	**Montgomery**	**North Harris**	**Tomball**
Online orientation prior to class	NS	NS	NS	NS	NS
On campus orientation	NS	NS	NS	NS	NS
Before registration required placement test	**S**	**S**	**S**	**S**	**S**
Took placement test	**S**	**S**	**S**	**S**	**S**
Exempt from placement test	NS	NS	NS	NS	NS
During 1st semester/quarter enrolled into a specific course: College Success	**S**	**S**	**S**	**S**	**S**
Enrolled 1st semester in learning community	NS	NS	NS	NS	NS
Academic advising/ Planning	NS	NS	NS	NS	NS
Career counseling	NS	NS	NS	**S**	NS
Job placement	NS	NS	NS	NS	**S**
Face to face tutoring	NS	NS	NS	NS	NS
Online tutoring	NS	NS	NS	NS	NS
Assigned person for needed information	**S**	**S**	NS	NS	**S**

Implications For Practice

Table 108 implies developmental students are more likely to have statistical significance in the institutional practices that include practices that are mandatory prior to enrolling in their first semester of college. Imposing developmental students to take

placement tests and courses based on their placement tests scores ultimately leads to their success. The student success courses teach developmental students the fundamental skills necessary for success while enrolled in college.

In addition, the institutional practice of assigning a person for needed information is significant for developmental students. Developmental students in this study have proven to be influenced by socialization. Having one person to contact for needed information about the 2-year institution or other offerings at the college may increase retention of students. One contact person my decrease the delay in information, inaccuracies in information, and may build a strong amount of trust for administrators/instructors.

Findings

The institutional practice or academic support initiatives that demonstrated the most significance for developmental students were before registration they were required to take a placement test, they took a placement test, the college required them to enroll in classes indicated by their placement test scores during their first semester/quarter, and during their first semester they were required to enroll into a specific course: college success (table 109, table 110). Having an assigned person for needed information was significant for developmental students at three of the five colleges within Lone Star College System.

Table 109.

Overall Cross-Campus Significance in Institutional Practices/Academic Support Initiatives for Developmental Students

Item Description	Significance
Before registration required placement test	Yes
Took a placement test (COMPLASS, ASSET ACCUPLACER, SAT, ACT, etc.)	Yes
I was exempt from taking a placement test at this college.	Yes
This college required me to enroll in classes indicated by my placement test scores.	Yes

This table reflects the institutional practices that are most significant for developmental students in this study.

Table 110.

Overall Cross-Campus Significance in Institutional Practices/Academic Support Initiatives for Developmental Students: Four Out of Five Campuses

Item Description	College with significance	College with no significance
All instructors had activities to introduce students to one another	LSC Cyfair LSC Kingwood LSC North Harris LSC Tomball	LSC Montgomery

Developmental students at four of the five colleges within Lone Star College System were more likely to report that all instructors had activities to introduce students to one another.

Table 111.

Institutional Practices/Academic Support Initiatives Significance
Overall Cross-Campus Significance in Institutional Practices/Academic Support Initiatives for Developmental Students: Three Out of Five Campuses

Item Description	College with significance	College with no significance
Assigned person for needed information	LSC Cyfair	LSC Montgomery
	LSC Kingwood	LSC North Harris
	LSC Tomball	
Advisor helped identify courses needed	LSC Cyfair	LSC Montgomery
	LSC Kingwood	LSC North Harris
	LSC Tomball	

Developmental students at Lone Star College Cyfair, Kingwood, and Tomball were more likely to report having an assigned person for needed information. Developmental students at Lone Star College Cyfair, Kingwood, and Tomball were more likely to report an advisor helped identify courses needed.

Table 112.

Overall Cross-Campus Non Significance in Institutional Practices/Academic Initiatives for Developmental students (Scaled)

Met with an advisor at convenient times
An advisor helped me to select a course of study, program, or major.
Staff discussed commitments outside of school.
One other student learned my name.
Received prompt written, oral feedback from an instructor on my performance.
Online orientation prior to class.
On campus orientation.
Enrolled first semester in a learning community.
Academic advising/planning
Face to face tutoring
Online tutoring

The table above reflects no significance in institutional practices or academic support initiatives for students at this 2-year institution. This table may be useful for administrators interested in altering administrative practices that are not significantly beneficial when used at large suburban 2-year institutions. This table in no way suggests these practices are not significant or eliminated, but for these students at this system these practices were not significant. Many of these practices are traditionally offered at 2-year institutions and can be altered to meet the needs of developmental students based on each college's need and or available resources.

This concludes the analysis from the 2009 SENSE survey for research questions #1 and #2. Chapter five provides further review of the findings.

Chapter Five: Conclusions and Recommendations

Introduction

The purpose of this study was to explore the differences in engagement levels between first time in college developmental students and non-developmental students and to determine what institutional practices or academic support initiatives support developmental students' engagement in 2-year institutions utilizing the 2009 Survey of Entering Student Engagement (SENSE).

The preceding chapters introduced the purpose of the study, the literature review, the methodology, and the findings from the statistical analyses performed in 2009 using the SENSE survey. This chapter contains conclusions and recommendations for educational leaders and instructors from the statistical analysis reported in chapter four.

There are a few limitations placed on this study. First, the data employed in this study to answer research questions one and two were limited to results from the 2009 SENSE survey for Lone Star College System and the five colleges that encompass that system. Consequently, the encounters of the participants in this survey may not signify the experiences of all first time in college developmental or non-developmental students locally, nationally, or internationally. The study also captures the experiences of these community college students in the first few weeks of their first semester in college. Also, the SENSE survey examined the experiences of students enrolled in 2-year institutions and not 4-year institutions or for profit institutions.

Study Summary

To delve into the variation in engagement levels between first time in college developmental and non-developmental students the researcher used the 2009 SENSE survey to compare and contrast the two groups using a quantitative methodology. This study focused on analyzing engagement levels of developmental and non-developmental students using the six SENSE benchmarks: Early Connections, High Expectations and Aspirations, Clear Academic Plan and Pathway, Effective Track to College Readiness, Engaged Learning, and Academic and Social Support Network. Thorough assessment between the two groups was performed.

Research question #1: *Are there significant differences in the engagement levels among first year developmental education students versus first year non-developmental college students within 2-year institutions?*

This question was answered by analyzing data for the following six SENSE benchmarks within the five colleges at Lone Star College System: Early Connections, High Expectations and Aspirations, Clear Academic Plan and Pathway, Effective Track to College Readiness, Engaged Learning, and Academic and Social Support Network. Major findings for question one are below.

Research question #2: *What institutional practices or academic support initiatives support developmental students' engagement in two-year institutions?*

This research question was answered by analyzing all questions in the 2009 SENSE Survey that indicated an institutional practice or practices that support academics. The following questions were examined to determine which institutional practice or academic support initiatives support developmental students' engagement in 2-year institutions.

Table 113.

Research Variables

Variable Name	#	Item Description/ Variable Name
ONLORIEN	11a	I took part in an online orientation program prior to the beginning of classes.
ONCORIEN	11b	I attended an on-campus orientation program prior to the beginning of classes
CSORIEN	11c	I enrolled in an orientation course as part of my course schedule during my first semester/quarter at this college.
REQPTEST	12a	Before I could register for classes I was required to take a placement test to assess my reading, writing, math skills
TKPTEST	12b	I took a placement test (COMPASS, ASSES, ACCUPLACER, SAT, ACT, etc)
EXPTEST	12c	I was exempt from taking a placement test at this college.
REQCLASS	14	This college required me to enroll in classes indicated by my placement test scores during my FIRST SEMESTER/ QUARTER.
ENRLSSDC	17e	In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER at this college? A course specifically designed to teach skills and strategies to help students succeed in college (e.g. a college success or student course)
ENRLOLC	17f	In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER at this college? An organized "learning community" (two or more courses that a group of students take together)
WELCOME	18a	The very first time I came to this college I felt welcome.
WNTSCCD	18b	The instructors at this college want me to succeed.
AACONTIM	18d	I was able to meet with an academic advisor at times convenient for me.
AASELMAJ	18e	An advisor helped me to select a course of study, program, or major.
ACADGOAL	18f	An advisor helped me to set academic goals and to create a plan for achieving them.
CRSADV	18g	An advisor helped me identify the courses I needed to take during my first semester/quarter.

OSCOMM	18h	A college staff member talked with me about my commitments outside of schoolwork, children, dependents, etc.) to help me figure out the number of courses to take.
ACTINTRO	18k	All instructors had activities to introduce students to one another.
RESOURCE	18L	All instructors clearly explained academic and student support services available at this college.
CSTAFNAM	18P	At least one college staff member (other than an instructor) learned my name.
FACNAM	18r	At least one instructor learned my name.
SUPINSTR	19e	Participate in supplemental instruction (extra class sessions with an instructor tutor, or experienced student)
FACASSN	19m	Discuss an assignment or grade with an instructor
FEEDBACK	19o	Receive prompt written or oral feedback from instructors on your performance.
ACADPLN	20a	
CAREERC	20b	Career Counseling
JOBPLACE	20c	Job placement assistance
FFTUTOR	20d	Face-to-face tutoring
OLTUTOR	20e	Online tutoring
ASNPERS	23	Was a specific person assigned to you so you could see him/her each time you needed information or assistance.

Traditional/Non-Traditional Age versus Gender in Developmental Students

"Community colleges enroll over half of all beginning public postsecondary students including disproportionate numbers of adult, first generation, low income, and other underrepresented subpopulations" (Schuetz & Barr, 2008, p. 17). With this knowledge, the researcher explored age and gender. Further analysis of the six SENSE Benchmarks within developmental students at Lone Star College Systems indicated that there may be additional reasons that sustain engagement levels within this population (see table 105). There is variation in traditional (younger) students versus non-traditional (older) students. There is also disparity in gender when comparing female developmental students to male developmental students.

The following tables of data analyzed indicate that non-traditional (older) students that are female are more likely to report engagement in the six benchmarks than traditional (younger) female or male students. Older male students were more likely to report slight engagement in the benchmark areas of Early Connections and Academic and Social Network.

Within traditional (younger) students, developmental female students were slightly more engaged than developmental male students. Traditional (younger) male students indicated engagement in the benchmarks Early Connections, Effective Track for College Readiness, and Clear Academic Plan and Pathway.

Table 114.

Developmental/Non-Developmental for Traditional Age/Non-Traditional Age and Gender Students

Benchmark	Younger-Older	Female-Male	Description
	Tomball	Tomball	Overall, developmental students at LSC Tomball are more engaged than their non-developmental peers.
Early Connections	+ 2.8	+ 2.6	Among developmental students, it appears that younger students and men are slightly more engaged, though statistical significance has not been determined.
High Expectations and Aspirations	NS	NS	Not significant at this college
Clear Academic Plan and Pathway	+ 3.0	+ 1.3	Among developmental students, it appears that older students and females are slightly more engaged, though statistical significance has not been determined.
Effective Track for College Readiness	- .2	- 2.6	Among developmental students, it appears that younger students and female are slightly more engaged, though statistical significance has not been determined.
Engaged Learning	- -1.7	- 1.3	Among developmental students, it appears that younger students and female are slightly more engaged, though statistical significance has not been determined.
Academic and Social Network	NS	NS	Not significant at this college

At Lone Star College Tomball traditional developmental students that are female are more likely to significantly report engagement in the five out of the six SENSE benchmarks.

Table 115.

Developmental/Non-Developmental for Traditional Age/Non-Traditional Age and Gender Students

Benchmark	Younger-Older	Female-Male	Description
	Cyfair	Cyfair	Overall, developmental students at LSC Cyfair are as engaged as their non-developmental peers.
Early Connections	NS	NS	Not significant at this college.
High Expectations and Aspirations	NS	NS	Not significant at this college.
Clear Academic Plan and Pathway	NS	NS	Not significant at this college.
Effective Track for College Readiness	+ 2.0	- .07	Among developmental students, it appears that younger students and male are slightly more engaged, though statistical significance has not been determined.
Engaged Learning	- 8.1	+ 1.4	Among developmental students, it appears that older students and female are slightly more engaged, though statistical significance has not been determined.
Academic and Social Network	- 4.5	- 0.4	Among developmental students, it appears that older students and male are slightly more engaged, though statistical significance has not been determined.

At Lone Star College Cyfair non-traditional male and female developmental students are more likely to significantly report engagement in three out of the six SENSE benchmarks.

Table 116.

Developmental/Non-Developmental for Traditional Age/Non-Traditional Age and Gender Students

Benchmark	Younger-Older	Female-Male	Description
	Kingwood	Kingwood	Overall, developmental students at LSC Kingwood are as engaged as their non-developmental peers.
Early Connections	- 9.3	- 4.1	Among developmental students, it appears that older students and males are slightly more engaged, though statistical significance has not been determined
High Expectations and Aspirations	NS	NS	Not significant at this college.
Clear Academic Plan and Pathway	NS	NS	Not significant at this college.
Effective Track for College Readiness	+ 1.6	- 3.2	Among developmental students, it appears that younger students and females are slightly more engaged, though statistical significance has not been determined
Engaged Learning	- 8.9	+ 1.5	Among developmental students, it appears that older students and female are slightly more engaged, though statistical significance has not been determined
Academic and Social Network	NS	NS	Not significant at this college.

At Lone Star College Kingwood non-traditional male and female students are more likely to report significance in three out of the six SENSE benchmarks.

Table 117.

Developmental/Non-Developmental for Traditional Age/Non-Traditional Age and Gender Students

Benchmark	Younger-Older	Female-Male	Description
	Montgomery	Montgomery	Overall, developmental students at LSC Montgomery are as engaged as their non-developmental peers.
Early Connections	NS	NS	Not significant at this college.
High Expectations and Aspirations	NS	NS	Not significant at this college.
Clear Academic Plan and Pathway	+ 4.6	+ 1.3	Among developmental students, it appears that younger students and females are slightly more engaged, though statistical significance has not been determined
Effective Track for College Readiness	+ 5.8	+ .3	Among developmental students, it appears that younger students and females are slightly more engaged, though statistical significance has not been determined
Engaged Learning	- 3.9	+ 6.7	Among developmental students, it appears that older students and females are slightly more engaged, though statistical significance has not been determined
Academic and Social Network	NS	NS	Not significant at this college.

At Lone Star College Montgomery traditional female developmental students are more likely to report significance in three out of the six SENSE benchmarks.

Table 118.

Developmental/Non-Developmental for Traditional Age/Non-Traditional Age and Gender Students

Benchmark	Younger-Older	Female-Male	Description
	North Harris	North Harris	Overall, developmental students at LSC North Harris are as engaged as their non-developmental peers.
Early Connections	NS	NS	Not significant at this college.
High Expectations and Aspirations	- 10.2	+ 70	Among developmental students, it appears that older students and females are slightly more engaged, though statistical significance has not been determined
Clear Academic Plan and Pathway	+ 2.1	- 5.9	Among developmental students, it appears that younger students and males are slightly more engaged, though statistical significance has not been determined
Effective Track for College Readiness	+ 3.8	+ 2.4	Among developmental students, it appears that older students and females are slightly more engaged, though statistical significance has not been determined
Engaged Learning	- 7.0	+ 2.3	Among developmental students, it appears that older students and females are slightly more engaged, though statistical significance has not been determined
Academic and Social Network	NS	NS	Not significant at this college.

At Lone Star College North Harris non-traditional female students are more likely to report significance in four out of the six SENSE benchmarks.

The tables for traditional versus non-traditional developmental students who are male versus female reflect significantly for females. The suggested recommendations are discussed in the recommendations section.

Recommendations

Increased socialization. Astin's (1999) Student Development Theory supports college persistence and describes the emotional and physical drive that students apply towards their education. The learner's learning is enhanced by the rigor dedicated to his or her academic career. The student's academic development is enhanced by academic support programs and interaction. Astin's theory supports the idea that students with high levels of involvement in studying, extracurricular activities, and constant interaction with faculty are prone to persist farther educationally than students who do not participate in the same activities.

According to the results from this survey, the researcher strongly suggests that this system of colleges support institutional practices that focus on socialization between students and staff for developmental and non-developmental students. Enforcing communication between students inside or outside the classroom appears to be significant to students as they engage themselves to the campus and courses. Under the assumption that engagement between students leads to increased involvement in class assignments, campus activities, and general information, socialization may be key to engaging the student. Suggested socialization within the classroom may include icebreaker activities at the start of the semester, in class group discussions throughout the semester, or assigned group activities outside of class. Outside of class assignments will encourage students to make initial contact with other students within their class,

obtain contact information of those students, and increase socialization about course work outside of class.

Vincent Tinto's (1987) Interactionalist theory of student persistence and retention suggests the community college student is similar to a melting pot of diversity. The theory supports the idea that each student arrives to college with an array of academic, cultural, and social backgrounds. The theory explains the reasons why some students succeed scholastically where other students do not. The cultural differences between students can also be a strong factor that alters student persistence. Tinto further documented that academic and social integration for the student with the institution occurs through educational and social communities on the campus.

Male and female initiatives. The researcher suggests implementation of male and female support groups, clubs, or programs that support the male and female college student. The data analyzed on traditional and non-traditional students reflects a growing number of male students that significantly reported engagement in several of the SENSE benchmarks (see tables 114, 115, 116, 118). Traditional males reported significance in Early Connections, Effective Track for College Readiness, and Clear and Academic Pathway. Though women currently outnumber men within 2-year institutions it is vital to support the males that are attending college. Initiatives such as African American or Hispanic based can provide the mentorship, guidance, and academic support needed to retain these students through their academic careers. Adding support for Veterans specifically in counseling, advising, and financial aid may target the non-traditional

older male population that is growing within 2-year institutions.

Non-traditional females reported the most significance in the SENSE benchmarks. This may reflect the interest in older women returning to college to seek education post-children, a desire to change careers, or the effects of the current economic recession. Either or, this population may need non-traditional services within their community college. The researcher recommends low cost daycare, individual and group counseling services, as well as support groups or clubs for older female students. Support groups for this population will assist them with transition back into the classroom, support of their families while they pursue their education, as well as provide them with training on the newest technological tools used academically within the classroom without anxiety.

Increase use of electronic tools. Developmental students may need additional encouragement to utilize electronic tools in and out of the classroom. Some developmental students are proficient and use electronic tools often while others have not ever used electronic tools due to lack of access within their home or previous institution. Assigning assignments that must be typed or presented visually may increase the number of developmental students that use computers, etc. to complete assignments. On occasion, instructors may want to utilize computer labs on their campus to engage students electronically. Instructors can assist students technologically by including websites or programs in their lectures that can be searched during class on a computer. Allowing class time provides practice and comfort in seeking assistance if needed. For

example, schedule a lab for your class and allow a librarian to visit the class and review useful websites to do research, write papers, or answer any questions they may have. At University Park, a satellite campus of Lone Star College Tomball, the sociology instructors utilize movies via the library. They create assignments with questions that come from the assigned movie. Each student must view the movie out of class, answer the questions thoughtfully, and turn the assignment in.

As campuses are becoming bookless and utilizing books online, this may be an ideal opportunity to engage students electronically while exposing them to countless electronic resources. Allowing hands on activities during and out of class may encourage developmental students to utilize electronic tools while enrolled in courses at the 2-year institution.

Tinto's *Integration Model* (1987) suggests that institutions of higher learning that incorporate the academic environment with the extracurricular interests of its students have a better chance of retaining those students. This model says that students involved in both entities increase their chances of staying in college, which in return increases the colleges overall retention rates. Tinto developed a model that incorporates the significance of engagement activities and academics. The model links the formal and informal aspects of college that are essential in success of college students.

In addition, there are many social networking cites that can be tied into a course. Twitter or Facebook are growing resources that can be used academically. For example, Twitter can be used in a sociology course to engage students on world topics that occur

daily. Providing extra credit to students who use this system to communicate with the instructor and others can be engaging. Facebook can be used for students to organize their presentations outside of class. For convenience purposes students can discuss topics, ideas, and responsibilities for assignments assigned by the instructor.

Utilize class time. A recommendation to solve the high number of students who turn in assignments late is to clearly review assignments during class time. Instructors can further assist students by allowing them to ask questions regarding the assignment rather than be unclear about the requirements of the assignment when they attempt it outside of class time. This allows ample opportunity to complete the assignment while impressing on the student the importance of the assignment. Discussing the assignment during class time may also encourage students to socialize with one another and discuss the assignment further.

Student success courses. The researcher recommends implementation of student success courses for students who place in developmental courses. The results from this survey indicate developmental students lack fundamental skills needed to obtain academic achievement for a variety of reasons. A student success course will provide the opportunity for developmental students to learn the fundamentals needed to be successful at the college. Student success courses should include a component on goal setting, time management, and a review of various study techniques.

Goal setting will teach students how to prepare for the future by setting realistic goals and an effective plan to achieve them. This can be reviewed with an academic

advisor for school or real life examples can be used to help students make better use of their time. Being that community college students are non-traditional students with ample responsibilities out of the classroom, goal setting will allow them to see the importance of planning and executing effectively.

A student success course that facilitates identifying strengths and weaknesses will assist students who are unclear in the most effective study habits that benefit them. For example, a student success course that teaches how to read assigned material, highlight key points, and study those key points may be needed for students who are not clear on this technique.

Discuss grades. The researcher recommends discussing grades with developmental and non-developmental students by the next class meeting. Full time and part time faculty that provide examinations to students should grade them, return them, and provide an opportunity to discuss those grades. Instead of waiting for a student to schedule office time with you, you schedule office time with them. As enrollments increase, so do the need for part time faculty to teach more courses. All too often adjunct faculty return exams without providing students the opportunity to discuss their scores. Departmental leaders may want to look into opportunities to provide locations for part time faculty to meet with students privately to discuss their grades. If space is an issue at the college, perhaps utilizing social network tools such as Skype (free webcam conferencing) may allow flexible times for the instructor and the student to discuss grades. This recommendation covers several areas: socialization, use of

electronic tools, engagement, and teaching and learning.

Mentor programs. Previous research has shown that intervention may lead to prevention for future students. A majority of first-time freshmen are considerably older and have not been in a classroom in a long time; they don't have the skills they need to succeed at college-level work without intervention (Roueche & Roueche, 1999). "Community colleges have a particularly important role. They educate the most deficient students and prepare them for employment and personal advancement" (McCabe, 2000, p. 13). This validates the necessity for intercession in developmental education for all ages and skill levels of college students.

Assign a person for needed information. This researcher recommends assigning a specific person to each student. This area was statistically significant for both developmental and non-developmental students (see chapter four). Most campuses utilize advisors or counselors to provide valuable information to students. But with growing enrollments these individuals are overwhelmed. "As is typical in a recession, many community colleges are experiencing a surge in enrollment, at precisely the same time that they must-like many enterprises, both public and private-contend with choking constraints on resources" (McClenney, 2009, p. 1). With this in mind, 2-year institutions should look into creative ways to utilize all the manpower that is available. The researcher recommends utilizing all members of the department that work towards student success. At the discretion of the departmental administrator, employees trained to provide accurate student information can be assigned a specific person for needed

information. An example of employees to utilize can be admission advisors, recruiters, or financial aid staff. This will free up advisors to assist students with pertinent college related issues while providing the one on one attention a student may be needing. This suggested practice is commonly used at for profit institutions with much success. There may be resistance with this practice. A different way to think of this practice is that the employees all work towards student success in their individual departments, employing this recommendation may make student success the job of everyone at the college.

Virtual advisor. Continuing with the recommendation of assigning a person for needed information, the researcher suggests a virtual advisor. A virtual advisor may be a cost effective way to provide students with the linkage they need to answer immediate questions they may have. This resource links students electronically and socially and may ultimately increase the persistence of students. *The Creative Community College: Leading Change Through Innovation* (2008) noted some certainties for colleges:

- Technology will enable and significantly improve faculty/student engagement. Soon, teachers and learning objects will virtually appear in three dimensions wherever and whenever students need. Education will continue to be increasingly mobile. (Roueche et al., p. 253)

A virtual advisor is an innovative and cost effective way to provide information to students without the cost of an onsite advisor. For colleges having difficulties providing office space to accommodate advisors and students that are waiting to see the advisors, this may be one of many space saving solutions.

Recommendations For Future Research

Mandatory student success course. A recommendation for future research is to employ mandatory comprehensive student success courses for developmental students. Analysis of the engagement levels of developmental students who are enrolled in two or more developmental courses and are enrolled in student success courses versus developmental students who placed in two or more developmental courses but do not have to complete a student success course may reveal the necessity of mandatory student success courses within 2-year institutions. A comparison of their levels of engagement and performance may provide institutions with data to utilize this practice in the future.

Non-traditional students: Motivation. An additional recommendation for future research is to study non-traditional female and male students. This study revealed that non-traditional female students were more likely to significantly report engagement than traditional students within the six SENSE benchmarks (see table 115). To capitalize on their levels of engagement, additional research is needed to discover specifically where their engagement levels are the highest and uncover the source of their motivation. Non-traditional students tend to display qualities conducive to retention such as to contribute more to class and ask questions. Research should further delve in these areas to uncover the source of their motivation. A study of this nature can increase the knowledge of retention and persistence of non-traditional female and male students.

Advisor to student ratios. This study revealed that developmental students are

more likely to report engagement when assigned one person for information. The rise in enrollment within 2-year institutions may directly affect the quality of academic advising that is offered to developmental and non-developmental students. The researcher recommends low advisor to student ratios to increase the quality of service being offered to the student. To keep this ratio low, administrators should consider hiring and training virtual advisors to meet with students at their convenience or by way of social networking tools of communication.

Summary

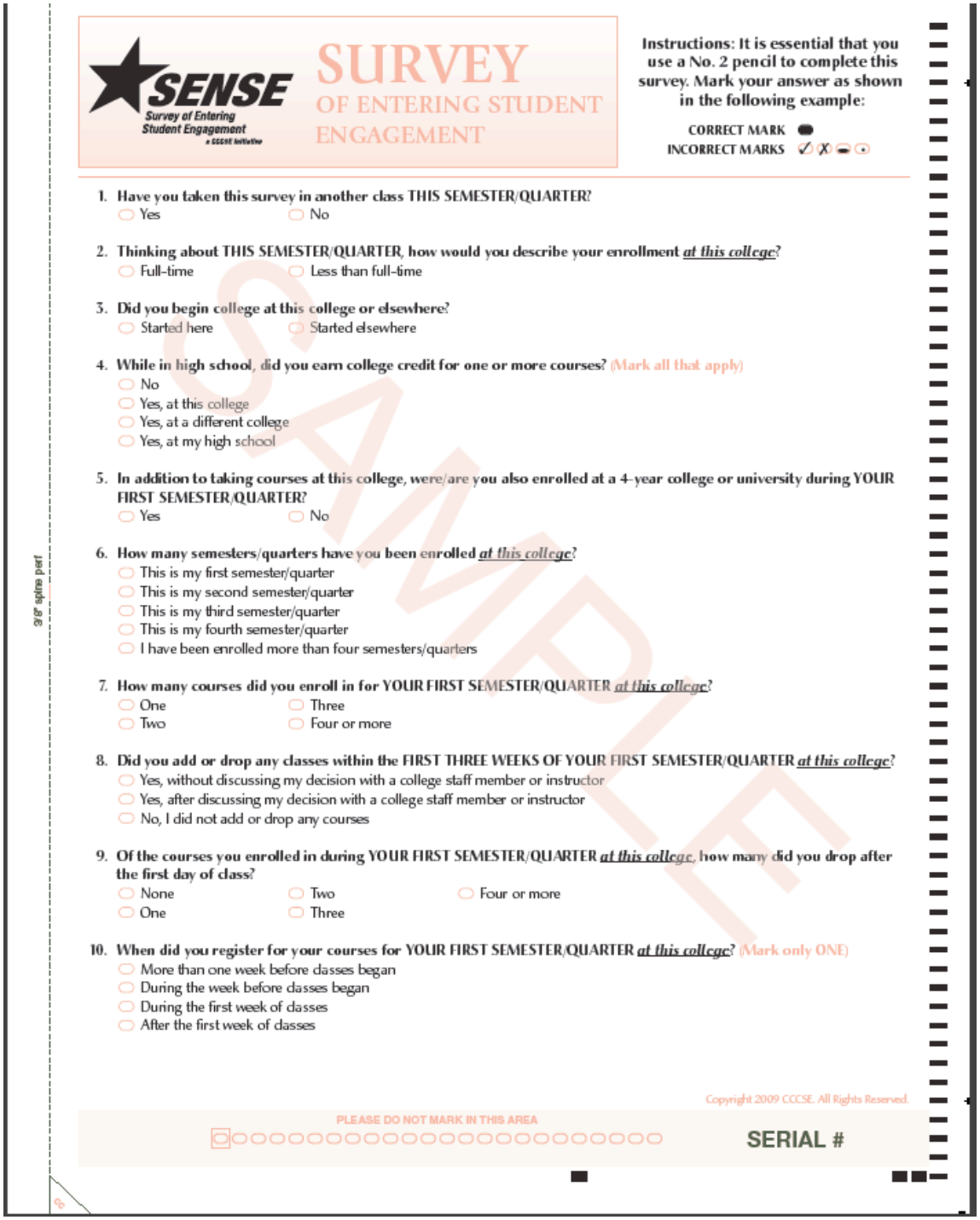
The SENSE survey has accumulated statistical facts to support the student success needs of entering students into the college while providing administrators, faculty, and staff with numerical feedback on how to improve their experiences. Two-year institutions that side with the voice of the student may be eager to use this survey to realign their administrative or academic support initiatives based on the results. In sum, administrative leadership within 2-year institutions should use this survey during the first college semester of their developmental and non-developmental students' educational careers. The SENSE survey provides answers to the many questions from administrators and faculty about the student population in which they serve. Having an open door policy for a student to come to speak with you in your office is no longer the way to obtain the true experiences from students. Strong surveys and thorough data analysis is the approach to solve the riddle of student engagement. Key input is provided from both developmental and non-developmental students based on various

variables that determine their engagement at the college. The researcher strongly urges administrators and faculty to consider utilizing the SENSE survey.

Overall, engaging developmental and non-developmental students will take a team effort. The success of a student is not the responsibility of the student success division solely. It is the responsibility of every employee at the college. We can never underestimate who may motivate or encourage a student based on their title alone. Student success for developmental and non-developmental students is contingent on individuals that think and work outside of the box, color outside of the lines, and use data tools to benefit this generation of college students.

APPENDIX A

SENSE SURVEY



SENSE Survey of Entering Student Engagement
a CCCSE Initiative

SURVEY OF ENTERING STUDENT ENGAGEMENT

Instructions: It is essential that you use a No. 2 pencil to complete this survey. Mark your answer as shown in the following example:

CORRECT MARK ●
INCORRECT MARKS ✓ ✗ ⊖ ⊙

1. Have you taken this survey in another class THIS SEMESTER/QUARTER?
   ○ Yes ○ No

2. Thinking about THIS SEMESTER/QUARTER, how would you describe your enrollment *at this college*?
   ○ Full-time ○ Less than full-time

3. Did you begin college at this college or elsewhere?
   ○ Started here ○ Started elsewhere

4. While in high school, did you earn college credit for one or more courses? (Mark all that apply)
   ○ No
   ○ Yes, at this college
   ○ Yes, at a different college
   ○ Yes, at my high school

5. In addition to taking courses at this college, were/are you also enrolled at a 4-year college or university during YOUR FIRST SEMESTER/QUARTER?
   ○ Yes ○ No

6. How many semesters/quarters have you been enrolled *at this college*?
   ○ This is my first semester/quarter
   ○ This is my second semester/quarter
   ○ This is my third semester/quarter
   ○ This is my fourth semester/quarter
   ○ I have been enrolled more than four semesters/quarters

7. How many courses did you enroll in for YOUR FIRST SEMESTER/QUARTER *at this college*?
   ○ One ○ Three
   ○ Two ○ Four or more

8. Did you add or drop any classes within the FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER *at this college*?
   ○ Yes, without discussing my decision with a college staff member or instructor
   ○ Yes, after discussing my decision with a college staff member or instructor
   ○ No, I did not add or drop any courses

9. Of the courses you enrolled in during YOUR FIRST SEMESTER/QUARTER *at this college*, how many did you drop after the first day of class?
   ○ None ○ Two ○ Four or more
   ○ One ○ Three

10. When did you register for your courses for YOUR FIRST SEMESTER/QUARTER *at this college*? (Mark only ONE)
    ○ More than one week before classes began
    ○ During the week before classes began
    ○ During the first week of classes
    ○ After the first week of classes

PLEASE DO NOT MARK IN THIS AREA

SERIAL #

11. **The following statements are about this college's orientation for new students.** (Mark all that apply)
- ○ I took part in an online orientation prior to the beginning of classes
- ○ I attended an on-campus orientation prior to the beginning of classes
- ○ I enrolled in an orientation course as part of my course schedule during my first semester/quarter at this college
- ○ I was not aware of a college orientation
- ○ I was unable to participate in orientation due to scheduling or other issues

12. **This set of items asks you about your earliest experiences *at this college*. To respond, please think about your experiences FROM THE TIME OF YOUR DECISION TO ATTEND THIS COLLEGE THROUGH THE END OF THE FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER.**

	Yes	No
a. Before I could register for classes I was *required* to take a placement test (COMPASS, ASSET, ACCUPLACER, SAT, ACT, etc.) to assess my skills in reading, writing, and/or math	○	○
b. I took a placement test (COMPASS, ASSET, ACCUPLACER, SAT, ACT, etc.)	○	○
c. I was exempt from taking a placement test at this college	○	○

13. **My placement test scores indicated that I needed to take a Developmental course (also referred to as Basic Skills, College Prep, etc.) in the following areas.** (Mark all that apply)
- ○ Didn't take a placement test
- ○ Developmental Reading
- ○ Developmental Writing
- ○ Developmental Math
- ○ Didn't place into any Developmental courses

14. **This college *required* me to enroll in classes indicated by my placement test scores during my FIRST SEMESTER/QUARTER.**
○ Yes ○ No

15. With regard to financial assistance (scholarships, grants, or loans, etc.) to help with your college costs, mark a response for each of the following items.	Yes	No
a. I applied for financial assistance (scholarships, grants, or loans, etc.)	○	○
b. I was notified I was eligible to receive financial assistance (scholarships, grants, or loans, etc.)	○	○
c. I received financial assistance funds (scholarships, grants, or loans, etc.) before classes began	○	○

16. **When did you first apply for financial assistance.** (Mark only ONE)
- ○ 3 or more months before classes began
- ○ 1 to 2 months before classes began
- ○ Less than 1 month before classes began
- ○ After classes began
- ○ I did not apply for financial assistance

17. In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER *at this college*? (Respond to each item)	Enrolled	Not enrolled
a. Developmental Reading (also referred to as Basic Skills, College Prep, etc.)	○	○
b. Developmental Writing (also referred to as Basic Skills, College Prep, etc.)	○	○
c. Developmental Math (also referred to as Basic Skills, College Prep, etc.)	○	○
d. An English course taught specifically for students whose first language is not English (ESL, ESOL)	○	○
e. A course specifically designed to teach skills and strategies to help students succeed in college (e.g., a college success or student success course)	○	○
f. An organized "learning community" (two or more courses that a group of students take together)	○	○

18. This set of items asks you about your earliest experiences *at this college*. To respond, please think about your experiences FROM THE TIME OF YOUR DECISION TO ATTEND THIS COLLEGE THROUGH THE END OF THE FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER. (Respond to each item)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
a. The very first time I came to this college I felt welcome	○	○	○	○	○
b. The instructors at this college want me to succeed	○	○	○	○	○
c. All the courses I needed to take during my first semester/quarter were available at times convenient for me	○	○	○	○	○
d. I was able to meet with an academic advisor at times convenient for me	○	○	○	○	○
e. An advisor helped me to select a course of study, program, or major	○	○	○	○	○
f. An advisor helped me to set academic goals and to create a plan for achieving them	○	○	○	○	○
g. An advisor helped me to identify the courses I needed to take during my first semester/quarter	○	○	○	○	○
h. A college staff member talked with me about my commitments outside of school (work, children, dependents, etc.) to help me figure out how many courses to take	○	○	○	○	○
i. The college provided me with adequate information about financial assistance (scholarships, grants, loans, etc.)	○	○	○	○	○
j. A college staff member helped me determine whether I qualified for financial assistance	○	○	○	○	○
k. All instructors had activities to introduce students to one another	○	○	○	○	○
l. All instructors clearly explained academic and student support services available at this college	○	○	○	○	○
m. All instructors clearly explained course grading policies	○	○	○	○	○
n. All instructors clearly explained course syllabi (syllabuses)	○	○	○	○	○
o. I knew how to get in touch with my instructors outside of class	○	○	○	○	○
p. At least one college staff member (other than an instructor) learned my name	○	○	○	○	○
q. At least one other student whom I didn't previously know learned my name	○	○	○	○	○
r. At least one instructor learned my name	○	○	○	○	○
s. I learned the name of at least one other student in most of my classes	○	○	○	○	○
t. I have the motivation to do what it takes to succeed in college	○	○	○	○	○
u. I am prepared academically to succeed in college	○	○	○	○	○

SERIAL # PLEASE DO NOT MARK IN THIS AREA

19. During the FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER *at this college*, about how often did you do the following? (Respond to each item)

	Never	Once	Two or three times	Four or more times
a. Ask questions in class or contribute to class discussions	○	○	○	○
b. Prepare at least two drafts of a paper or assignment before turning it in	○	○	○	○
c. Turn in an assignment late	○	○	○	○
d. Not turn in an assignment	○	○	○	○
e. Participate in supplemental instruction (extra class sessions with an instructor, tutor, or experienced student)	○	○	○	○
f. Come to class without completing readings or assignments	○	○	○	○
g. Work with other students on a project or assignment during class	○	○	○	○
h. Work with classmates outside of class on class projects or assignments	○	○	○	○
i. Participate in a required study group outside of class	○	○	○	○
j. Participate in a student-initiated (not required) study group outside of class	○	○	○	○
k. Use an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with another student about coursework	○	○	○	○
l. Use an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with an instructor about coursework	○	○	○	○
m. Discuss an assignment or grade with an instructor	○	○	○	○
n. Ask for help from an instructor regarding questions or problems related to a class	○	○	○	○
o. Receive prompt written or oral feedback from instructors on your performance	○	○	○	○
p. Receive grades or points on assignments, quizzes, tests, or papers, etc.	○	○	○	○
q. Discuss ideas from your readings or classes with instructors outside of class	○	○	○	○
r. Discuss ideas from your readings or classes with others outside of class (students, family, co-workers, etc.)	○	○	○	○
s. Skip class	○	○	○	○

PLEASE DO NOT MARK IN THIS AREA

SERIAL #

20. This section asks three questions about a variety of college services. Answer ALL THREE QUESTIONS for each service indicating (1) whether you knew about it, (2) how often you used it, and (3) how satisfied you were. To respond, please think about your experiences FROM THE TIME OF YOUR DECISION TO ATTEND THIS COLLEGE THROUGH THE END OF THE FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER.

	(1) Did you KNOW ABOUT it?		(2) How often did you USE it?				(3) How SATISFIED were you with it?			
	Yes	No	Never	Once	Two or three times	Four or more times	Very	Some-what	Not at all	N/A
a. Academic advising/planning	○	○	○	○	○	○	○	○	○	○
b. Career counseling	○	○	○	○	○	○	○	○	○	○
c. Job placement assistance	○	○	○	○	○	○	○	○	○	○
d. Face-to-face tutoring	○	○	○	○	○	○	○	○	○	○
e. Online tutoring	○	○	○	○	○	○	○	○	○	○
f. Writing, math, or other skill lab	○	○	○	○	○	○	○	○	○	○
g. Financial assistance advising	○	○	○	○	○	○	○	○	○	○
h. Computer lab	○	○	○	○	○	○	○	○	○	○
i. Student organizations	○	○	○	○	○	○	○	○	○	○
j. Transfer credit assistance	○	○	○	○	○	○	○	○	○	○
k. Services to students with disabilities	○	○	○	○	○	○	○	○	○	○

21. This set of items asks you about your earliest experiences ***at this college***. To respond, please think about your experiences FROM THE TIME OF YOUR DECISION TO ATTEND THIS COLLEGE THROUGH THE END OF THE FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER. (Respond to each item)

Within a class, or through another experience at this college:	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
a. I learned to improve my study skills (listening, note taking, highlighting readings, working with others, etc.)	○	○	○	○	○
b. I learned to understand my academic strengths and weaknesses	○	○	○	○	○
c. I learned skills and strategies to improve my test-taking ability	○	○	○	○	○

22. Thinking about your experiences FROM THE TIME OF YOUR DECISION TO ATTEND THIS COLLEGE THROUGH THE END OF THE FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER, what has been your MAIN source of academic advising (help with academic goal-setting, planning, course recommendations, graduation requirements, etc.)? (Mark only ONE)

- ○ Instructors
- ○ College staff (not instructors)
- ○ Friends, family, or other students
- ○ Computerized degree advisor system
- ○ College Web site
- ○ Other college materials

23. **Was a specific person assigned to you so you could see him/her each time you needed information or assistance?**
○ Yes ○ No

24. **During the FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER *at this college*, about how many hours did you spend in a typical 7-day week doing each of the following?**

	None	1–5	6–10	11–20	21–30	More than 30
a. Preparing for class (in a typical 7-day week)	○	○	○	○	○	○
b. Working for pay (in a typical 7-day week)	○	○	○	○	○	○

25. **When do you plan to take classes *at this college* again?**
○ I will accomplish my goal(s) during this semester/quarter and will not be returning
○ I have no current plans to return
○ Within the next 12 months
○ Uncertain

26. While in high school, did you	Yes	No	N/A
a. Take math every school year?	○	○	○
b. Take math during your senior year?	○	○	○

27. **Would you recommend this college to a friend or family member?**
○ Yes ○ No

28. **In what range was your overall high school grade average?**
○ A ○ A– to B+ ○ B ○ B– to C+ ○ C ○ C– or lower

29. **Your sex:**
○ Male ○ Female

30. **Mark your age group.**
○ Under 18 ○ 18 to 19 ○ 20 to 21 ○ 22 to 24 ○ 25 to 29 ○ 30 to 39 ○ 40 to 49 ○ 50 to 64 ○ 65+

	Yes	No
31. Are you married?	○	○
32. Do you have children who live with you and depend on you for their care?	○	○
33. Is English your native (first) language?	○	○
34. Are you an international student or nonresident alien?	○	○

35. **What is your racial/ethnic identification?** (Mark only ONE)
○ American Indian or Native American
○ Asian, Asian American, or Pacific Islander
○ Native Hawaiian
○ Black or African American, Non-Hispanic
○ White, Non-Hispanic
○ Hispanic, Latino, Spanish
○ Other

36. **What is the highest academic certificate or degree you have earned?** (Mark only ONE)
○ None ○ GED ○ High school diploma ○ Vocational/technical certificate ○ Associate degree ○ Bachelor's degree ○ Master's/Doctoral/Professional degree

37. Please indicate whether your goal(s) for attending *this college* include the following: (Respond to all three)

	Yes	No
a. To complete a certificate	○	○
b. To obtain an Associate degree	○	○
c. To transfer to a 4-year college or university	○	○

38. Who in your family has attended at least some college? (Mark all that apply)

- ○ Mother
- ○ Father
- ○ Brother/Sister
- ○ Child
- ○ Spouse/Partner
- ○ Legal Guardian
- ○ None of the above

39. Please provide your student identification number by filling in the corresponding ovals. For example, in the first column, indicate the first number or letter in your student ID number, and so forth. (OPTIONAL)

(Please begin here)

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z

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Additional Items
(Please respond to these items if requested)

1	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	13	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
2	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	14	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
3	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	15	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
4	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	16	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
5	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	17	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
6	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	18	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
7	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	19	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
8	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	20	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
9	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	21	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
10	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	22	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
11	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	23	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
12	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	24	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ

Your responses will remain confidential.
No individual responses will be reported.

Thank you for sharing your views.

PLEASE DO NOT MARK IN THIS AREA

SERIAL #

APPENDIX B

SENSE CODEBOOK

Item #	Variable Name	Item Description/Variable Label	Response Value
Please note the following for the *SENSE* data set: Invalid responses are coded as missing "."			
	SURVEYNO	Survey Number	
1	SRVAGAIN	Have you taken this survey in another class THIS SEMESTER/QUARTER?	1= Yes 2= No
2	ENRLMENT	Thinking about THIS SEMESTER/QUARTER, how would you describe your enrollment *at this college*?	1= Less than Full-time 2= Full-time
3	ENTER	Did you begin college at this college or elsewhere?	1= Started here 2= Started elsewhere
4	*The following statements are about whether a student earned college credit for one or more questions while in high school. This question asks students to select all options that apply. To permit multiple responses, the question is represented in the codebook by four separate items the student either checks or does not check.*		
4a	NOHS	While in high school, did you earn college credit for one or more courses? No	0= No Response 1= Response
4b	THISC	While in high school, did you earn college credit for one or more courses? Yes, at this college	0= No Response 1= Response
4c	DIFFC	While in high school, did you earn college credit for one or more courses? Yes, at a different college	0= No Response 1= Response
4d	MYHS	While in high school, did you earn college credit for one or more courses? Yes, at my high school	0= No Response 1= Response
5	OTHERENR	In addition to taking courses at this college, were/are you also enrolled at a 4-year college or university during YOUR FIRST SEMESTER/QUARTER?	1= Yes 2= No
6	TERMSENR	How many semesters/quarters have you been enrolled *at this college*?	1= This is my first semester/quarter 2= This is my second semester/quarter 3= This is my third semester/quarter 4= This is my fourth semester/quarter 5= I have been enrolled more than four semesters/quarters
7	COURSENO	How many courses did you enroll in for YOUR FIRST SEMESTER/QUARTER *at this college*?	1= 1 course 2= 2 courses 3= 3 courses 4= 4 courses or more

Item #	Variable Name	Item Description/Variable Label	Response Value
8	ADDROP	Did you add or drop any classes within the FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER *at this college*?	1= Yes, without discussing my decision with a college staff member or instructor 2= Yes, after discussing my decision with a college staff member or instructor 3= No, I did not add or drop any courses
9	DROPNO	Of the courses you enrolled in during YOUR FIRST SEMESTER/QUARTER *at this college*, how many did you drop after the first day of class and before the end of the term?	1= None 2= 1 course 3= 2 courses 4= 3 courses 5= 4 courses or more
10	REGCLASS	When did you register for your courses for YOUR FIRST SEMESTER/QUARTER *at this college*?	1= More than one week before classes began 2= During the week before classes began 3= During the first week of classes 4= After the first week of classes
11	*The following statements are about this college's orientation program. This question asks students to select all options that apply. To permit multiple responses, the question is represented in the codebook by five separate items the student either checks or does not check.*		
11a	ONLORIEN	I took part in an online orientation program prior to the beginning of classes	0= No Response 1= Response
11b	ONCORIEN	I attended an on-campus orientation program prior to the beginning of classes	0= No Response 1= Response
11c	CSORIEN	I enrolled in an orientation course as part of my course schedule during my first semester/quarter at this college	0= No Response 1= Response
11d	NWORIEN	I was not aware of a college orientation	0= No Response 1= Response
11e	UNAORIEN	I was unable to participate in the orientation due to scheduling or other issues	0= No Response 1= Response
12a	REQPTEST	Before I could register for classes I was *required* to take a placement test (COMPASS, ASSET, ACCUPLACER, SAT, ACT, etc.) to assess my skills in reading, writing, and/or math	1= Yes 2= No
12b	TKPTEST	I took a placement test (COMPASS, ASSET, ACCUPLACER, SAT, ACT, etc.)	1= Yes 2= No
12c	EXPTEST	I was exempt from taking a placement test at this college	1= Yes 2= No

Item #	Variable Name	Item Description/Variable Label	Response Value
13	*The following statements are about whether a student's placement test scores indicated he or she needed to take a Developmental course. This question asks students to select all options that apply. To permit multiple responses, the question is represented in the codebook by five separate items the student either checks or does not check.*		
13a	NOTEST	My placement test scores indicated that I needed to take a Developmental course (also referred to as Basic Skills, College Prep, etc.) in the following areas: Didn't take a placement test	0= No Response 1= Response
13b	NEEDREAD	My placement test scores indicated that I needed to take a Developmental course (also referred to as Basic Skills, College Prep, etc.) in the following areas: Developmental reading	0= No Response 1= Response
13c	NEEDWRIT	My placement test scores indicated that I needed to take a Developmental course (also referred to as Basic Skills, College Prep, etc.) in the following areas: Developmental writing	0= No Response 1= Response
13d	NEEDMATH	My placement test scores indicated that I needed to take a Developmental course (also referred to as Basic Skills, College Prep, etc.) in the following areas: Developmental math	0= No Response 1= Response
13e	NEEDNONE	My placement test scores indicated that I needed to take a Developmental course (also referred to as Basic Skills, College Prep, etc.) in the following areas: Didn't place into any Developmental courses	0= No Response 1= Response
14	REQCLASS	This college *required* me to enroll in classes indicated by my placement test scores during my FIRST SEMESTER/QUARTER	1= Yes 2= No
15a	APPLIED	I applied for financial assistance (scholarships, grants, or loans, etc.)	1= Yes 2= No
15b	OFFERED	I was notified I was eligible to receive financial assistance (scholarships, grants, or loans, etc.)	1= Yes 2= No
15c	RECEIVED	I received financial assistance funds (scholarships, grants, or loans, etc.) before classes began	1= Yes 2= No
16	TIMEAPPL	When did you first apply for financial assistance	1= 3 or more months before classes began 2= 1 or 2 months before classes began 3= Less than 1 month before classes began 4= After classes began 5= I did not apply for financial assistance

Item #	Variable Name	Item Description/Variable Label	Response Value
17a	EDCPR	In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER *at this college*? Developmental Reading (also referred to as Basic Skills, College Prep, etc.)	1= Enrolled 2= Not Enrolled
17b	EDCPW	In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER *at this college*? Developmental Writing (also referred to as Basic Skills, College Prep, etc.)	1= Enrolled 2= Not Enrolled
17c	EDCPM	In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER *at this college*? Developmental Math (also referred to as Basic Skills, College Prep, etc.)	1= Enrolled 2= Not Enrolled
17d	ENRLENG	In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER *at this college*? An English course taught specifically for students whose first language is not English (ESL, ESOL)	1= Enrolled 2= Not Enrolled
17e	ENRLSSDC	In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER *at this college*? A course specifically designed to teach skills and strategies to help students succeed in college (e.g., a college success or student course)	1= Enrolled 2= Not Enrolled
17f	ENRLOLC	In which of the following types of courses were you enrolled during your FIRST SEMESTER/QUARTER *at this college*? An organized “learning community” (two or more courses that a group of students take together)	1= Enrolled 2= Not Enrolled
18a	WELCOME	The very first time I came to this college I felt welcome	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18b	WNTSCCD	The instructors at this college want me to succeed	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18c	CONVTIME	All the courses I needed to take during my first semester/quarter were available at times convenient for me	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree

Item #	Variable Name	Item Description/Variable Label	Response Value
18d	AACONTIM	I was able to meet with an academic advisor at times convenient for me	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18e	AASELMAJ	An advisor helped me to select a course of study, program, or major	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18f	ACADGOAL	An advisor helped me to set academic goals and to create a plan for achieving them	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18g	CRSADV	An advisor helped me identify the courses I needed to take during my first semester/quarter	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18h	OSCOMM	A college staff member talked with me about my commitments outside of school (work, children, dependents, etc.) to help me figure out the number of courses to take	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18i	FAINFO	The college provided me with adequate information about financial assistance	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18j	QUALFA	A college staff member helped me determine whether I qualified for financial assistance	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18k	ACTINTRO	All instructors had activities to introduce students to one another	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18l	RESOURCE	All instructors clearly explained academic and student support services available at this college	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18m	GRADEPOL	All instructors clearly explained course grading policies	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree

Item #	Variable Name	Item Description/Variable Label	Response Value
18n	SYLLABI	Instructors clearly explained course syllabi (syllabuses)	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18o	FACMEET	I knew how to get in touch with my instructors outside of class	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18p	CSTAFNAM	At least one college staff member (other than an instructor) learned my name	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18q	OSTUDNAM	At least one other student whom I did not previously know learned my name	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18r	FACNAM	At least one instructor learned my name	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18s	STUNAM	I learned the name of at least one other student in most of my classes	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18t	ITTAKES	I have the motivation to do what it takes to succeed in college	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
18u	ACPRPRD	I am prepared academically to succeed in college	1= Strongly Disagree 2= Disagree 3= No opinion 4= Agree 5= Strongly Agree
19a	ASKQUES	Ask questions in class or contribute to class discussions	1= Never 2= Once 3= Two or three times 4= Four or more times
19b	PREPDRFT	Prepare at least two drafts of a paper or assignment before turning it in	1= Never 2= Once 3= Two or three times 4= Four or more times

Item #	Variable Name	Item Description/Variable Label	Response Value
19c	LATETURN	Turn in an assignment late	1= Never 2= Once 3= Two or three times 4= Four or more times
19d	NOTTURN	Not turn in an assignment	1= Never 2= Once 3= Two or three times 4= Four or more times
19e	SUPINSTR	Participate in supplemental instruction (extra class sessions with an instructor tutor, or experienced student)	1= Never 2= Once 3= Two or three times 4= Four or more times
19f	NOTCOMPL	Come to class without completing readings or assignments	1= Never 2= Once 3= Two or three times 4= Four or more times
19g	PINCLASS	Work with other students on a project or assignment during class	1= Never 2= Once 3= Two or three times 4= Four or more times
19h	PREPOUTC	Work with classmates outside of class on class projects or assignments	1= Never 2= Once 3= Two or three times 4= Four or more times
19i	GRPSTUDY	Participate in a required study group outside of class	1= Never 2= Once 3= Two or three times 4= Four or more times
19j	NRGSTUDY	Participate in a student-initiated (not required) study group outside of class	1= Never 2= Once 3= Two or three times 4= Four or more times
19k	USEINTMG	Use an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with another student about coursework	1= Never 2= Once 3= Two or three times 4= Four or more times
19l	MAILFAC	Use an electronic tool (e-mail, text messaging, Facebook, MySpace, class Web site, etc.) to communicate with an instructor about coursework	1= Never 2= Once 3= Two or three times 4= Four or more times
19m	FACASSN	Discuss an assignment or grade with an instructor	1= Never 2= Once 3= Two or three times 4= Four or more times
19n	CLASSREL	Ask for help from an instructor regarding questions or problems related to a class	1= Never 2= Once 3= Two or three times 4= Four or more times

Item #	Variable Name	Item Description/Variable Label	Response Value
19o	FEEDBACK	Receive prompt written or oral feedback from instructors on your performance	1= Never 2= Once 3= Two or three times 4= Four or more times
19p	RCVGRDS	Receive grades or points on assignments, quizzes, tests, or papers	1= Never 2= Once 3= Two or three times 4= Four or more times
19q	FACIDOC	Discuss ideas from readings or classes with instructors outside of class	1= Never 2= Once 3= Two or three times 4= Four or more times
19r	OCIDEAS	Discuss ideas from your readings or classes with others outside of class (students, family, co-workers, etc.)	1= Never 2= Once 3= Two or three times 4= Four or more times
19s	SKIPCL	Skip class	1= Never 2= Once 3= Two or three times 4= Four or more times
20a1	ACADPLNG	Academic advising/planning	1= Yes 2= No
20a2	ACADPUSE	Frequency: Academic advising/planning	1= Never 2= Once 3= Two or three times 4= Four or more times
20a3	ACADPSAT	Satisfaction: Academic advising/planning	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20b1	CAREERC	Career Counseling	1= Yes 2= No
20b2	CARCUSE	Frequency: Career Counseling	1= Never 2= Once 3= Two or three times 4= Four or more times
20b3	CARCSAT	Satisfaction: Career Counseling	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20c1	JOBPLACE	Job placement assistance	1= Yes 2= No
20c2	JOBPLUSE	Frequency: Job placement assistance	1= Never 2= Once 3= Two or three times 4= Four or more times

Item #	Variable Name	Item Description/Variable Label	Response Value
20c3	JOBPLSAT	Satisfaction: Job placement assistance	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20d1	FFTUTOR	Face-to-face tutoring	1= Yes 2= No
20d2	FFTUSE	Frequency: Face-to-face tutoring	1= Never 2= Once 3= Two or three times 4= Four or more times
20d3	FFTSAT	Satisfaction: Face-to-face tutoring	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20e1	OLTUTOR	Online tutoring	1= Yes 2= No
20e2	OLTUSE	Frequency: Online tutoring	1= Never 2= Once 3= Two or three times 4= Four or more times
20e3	OLTSAT	Satisfaction: Online tutoring	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20f1	SKILLABS	Writing, math, or other skill lab	1= Yes 2= No
20f2	SKLABUSE	Frequency: Writing, math, or other skill lab	1= Never 2= Once 3= Two or three times 4= Four or more times
20f3	SKLBSAT	Satisfaction: Writing, math, or other skill lab	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20g1	FAADVS	Financial assistance advising	1= Yes 2= No
20g2	FAUSE	Frequency: Financial assistance advising	1= Never 2= Once 3= Two or three times 4= Four or more times
20g3	FAADVSAT	Satisfaction: Financial assistance advising	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20h1	COMPLAB	Computer lab	1= Yes 2= No

Item #	Variable Name	Item Description/Variable Label	Response Value
20h2	COMLBUSE	Frequency: Computer lab	1= Never 2= Once 3= Two or three times 4= Four or more times
20h3	COMLBSAT	Satisfaction: Computer lab	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20i1	STUORGS	Student organizations	1= Yes 2= No
20i2	STORGUSE	Frequency: Student organizations	1= Never 2= Once 3= Two or three times 4= Four or more times
20i3	STORGSAT	Satisfaction: Student organizations	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20j1	TRANSFCR	Transfer credit assistance	1= Yes 2= No
20j2	TRNFCRAS	Frequency: Transfer credit assistance	1= Never 2= Once 3= Two or three times 4= Four or more times
20j3	TRCRASAT	Satisfaction: Transfer credit assistance	0= Not applicable 1= Not at all 2= Somewhat 3= Very
20k1	DISABSVS	Services to students with disabilities	1= Yes 2= No
20k2	DISVSUSE	Frequency: Services to students with disabilities	1= Never 2= Once 3= Two or three times 4= Four or more times
20k3	DISVSAT	Satisfaction: Services for people with disabilities	0= Not applicable 1= Not at all 2= Somewhat 3= Very
21a	LNDSTUDY	With a class, or through another experience at this college: I learned to improve my study skills (listening, note taking, highlighting readings, working with others, etc.)	1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree
21b	LNDACAWK	With a class, or through another experience at this college: I learned to understand my academic strengths and weaknesses	1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree

Item #	Variable Name	Item Description/Variable Label	Response Value
21c	LNDSKLLS	With a class, or through another experience at this college: I learned skills and strategies to improve my test-taking ability	1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree
22	PSOURACA	Thinking about your experiences FROM THE TIME OF YOUR DECISION TO ATTEND THIS COLLEGE THROUGH THE END OF THE FIRST THREE WEEKS OF YOUR FIRST SEMESTER/QUARTER, what has been your MAIN source of academic advising (help with academic goal-setting, planning, course recommendations, graduation requirements, etc.)?	1= Instructors 2= College staff (not instructors) 3= Friends, family or other students 4= Computerized degree advisor system 5= College Web site 6= Other college materials
23	ASNPERS	Was a specific person assigned to you so you could see him/her each time you needed information or assistance	1= Yes 2= No
24a	PREPCLAS	During the first three weeks of your first SEMESTER/QUARTER *at this college*, about how many hours did you spend in a typical 7-day week doing the following? Preparing for class (in a typical 7-day week)	1= None 2= 1-5 hours 3= 6-10 hours 4= 11-20 hours 5= 21-30 hours 6= More than 30 hours
24b	WORKPAY	During the first three weeks of your first SEMESTER/QUARTER *at this college*, about how many hours did you spend in a typical 7-day week doing the following? Working for pay (in a typical 7-day week)	1= None 2= 1-5 hours 3= 6-10 hours 4= 11-20 hours 5= 21-30 hours 6= More than 30 hours
25	AGAINCL	When do you plan to take classes *at this college* again?	1= I will accomplish my goal(s) this semester/quarter and will not be returning 2= I have no current plans to return 3= Within the next 12 months 4= Uncertain
26a	MATHALLF	While in high school, did you take math every school year?	0= Not Applicable 1= Yes 2= No
26b	MATHSNYR	While in high school, did you take math during your senior year?	0= Not Applicable 1= Yes 2= No
27	RECOCOLL	Would you recommend this college to a friend or family member?	1= Yes 2= No

Item #	Variable Name	Item Description/Variable Label	Response Value
28	HSGRADE	In what range was your overall high school grade average?	1= A 2= A- to B+ 3= B 4= B- to C+ 5= C 6= C- or lower
29	SEX	Your sex	1= Male 2= Female
30	AGENEW	Mark your age group	1= Under 18 2= 18 to 19 3= 20 to 21 4= 22 to 24 5= 25 to 29 6= 30 to 39 7= 40 to 49 8= 50 to 64 9= 65+
31	MARRSTAT	Are you married?	1= Yes 2= No
32	CHILDREN	Do you have children who live with you and depend on you for their care?	1= Yes 2= No
33	ENGNAT	Is English your native (first) language?	1= Yes 2= No
34	INTERNAT	Are you an international student or nonresident alien?	1= Yes 2= No
35	DIVERSIT	What is your racial identification?	1= American Indian or Native American 2= Asian, Asian American or Pacific Islander 3= Native Hawaiian 4= Black or African American, Non-Hispanic 5= White, Non-Hispanic 6= Hispanic, Latino, Spanish 7= Other
36	DEGREE	What is the highest academic certificate or degree you have earned?	1= None 2= GED 3= High school diploma 4= Vocational/technical certificate 5= Associate degree 6= Bachelor's degree 7= Master's/Doctoral/ Professional
37a	CERTPRGM	Please indicate whether your goal(s) for attending *this college* include the following: To complete a certificate	1= Yes 2= No

Item #	Variable Name	Item Description/Variable Label	Response Value
37b	ASSOCDEG	Please indicate whether your goal(s) for attending *this college* include the following: To obtain an Associate degree	1= Yes 2= No
37c	TR4YR	Please indicate whether your goal(s) for attending *this college* include the following: To transfer to a 4-year college or university	1= Yes 2= No
38	*This question asks students to select all options that apply. To permit multiple responses, the question is represented in the codebook by seven separate items the student either checks or does not check.*		
38a	MOTHED	Who in your family has attended at least some college? Mother	0= No Response 1= Response
38b	FATHED	Who in your family has attended at least some college? Father	0= No Response 1= Response
38c	SIBLINED	Who in your family has attended at least some college? Brother/Sister	0= No Response 1= Response
38d	CHILDED	Who in your family has attended at least some college? Child	0= No Response 1= Response
38e	SPOUCED	Who in your family has attended at least some college? Spouse/Partner	0= No Response 1= Response
38f	LGUARDED	Who in your family has attended at least some college? Legal Guardian	0= No Response 1= Response
38g	NONED	Who in your family has attended at least some college? None of the above	0= No Response 1= Response

The items below contain course level data from the Course Schedule File:

Variable Name	Item Description/Variable Label	Response Value
in_analysis	Included in analysis	0=False 1=True
In	Survey number in range for packet	0=False 1=True
sdate	Course start date	
edate	Course end date	
camploc	Campus location	
secno	Section number	
courseno	Course number	
courname	Course full name	
bldg	Building	
room	Room	
meetdays	Class meeting days	
instrnam	Instructor name	
depart	Department	
maxenrol	Maximum enrollment	
stime	Class start time	

etime	Class end time

The items below refer to derived *SENSE* variables:

Variable Name	Item Description/Variable Label	Response Value
return	Entering/Returning students	0=Entering 1=Returning
studage	Traditional/Nontraditional age students	1=Traditional Age Student (24 and younger) 2=Nontraditional Age Student (25 and older)
developm	Enrolled in one or more developmental education classes	1=Developmental 2=Non-Developmental
firstgen	First-Generation/Not First-Generation Students	1=First-Generation (neither parent attended college) 2=Not First-Generation (at least one parent attended college)
whitemin	White/Non-Asian minority students	1=White 2=Non-Asian Minority

The items below contain course level data from the class information sheet

Variable Name	Item Description/Variable Label	Response Value
SRVADMN	Survey administered by	1=Faculty 2=Survey Administrator
NUMSTU	Number of students in attendance	
ADMNTIME	Total administration time: *in minutes*	
ADMNDATE	Administration date	

The items below are calculated weights and benchmarks:

Variable Name	Item Description/Variable Label
iweight	Institutional weight based on part-time/full-time enrollment
earlycon	Early connections benchmark score (rescaled from 0 to 1)
hiexpect	High expectations and aspirations benchmark score (rescaled from 0 to 1)
acadplan	Clear academic plan and pathway benchmark score (rescaled from 0 to 1)
collread	Effective track to college readiness benchmark score (rescaled from 0 to 1)
engaglrn	Engaged learning benchmark score (rescaled from 0 to 1)

acsocsup	Academic and social support network benchmark score (rescaled from 0 to 1)

The items below are standardized benchmarks:

Variable Name	Item Description/Variable Label
earlycon_std	Standardized early connections benchmark score (mean of 50)
hiexpect_std	Standardized high expectations and aspirations benchmark score (mean of 50)
acadplan_std	Standardized clear academic plan and pathway benchmark score (mean of 50)
collread_std	Standardized effective track to college readiness benchmark score (mean of 50)
engaglrn_std	Standardized engaged learning benchmark score (mean of 50)
acsocsup_std	Standardized academic and social support network benchmark score (mean of 50)

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Vita

Marie Sesay is the first born daughter to Mr. Yarta B. Sesay, Sr. and Mrs. Aminata T.J. Sesay of Sierra Leone, West Africa. She was born in Washington, D.C., moved to Texas and completed her high school education in the Alief Independent School District in Houston, TX. She is a graduate of Stephen F. Austin State University where she holds a Bachelors of Arts in Gerontology. At SFA she was the first female and first African American to serve as President of the Gerontology club. She served in nursing home administration and as an administrator of several group homes.

She then pursued a Masters of Arts from Prairie View A&M University in Counseling, completed the requirements for state licensure and completed post-graduate work in Sociology. Marie served as a Psychotherapist for Mental Health Mental Retardation of Harris County (MHMRA) in Houston, TX for almost ten years prior to higher education.

Within higher education Marie has served in the capacity of instruction and student services. At Houston Community College System she served as a career counselor and workshop facilitator as well as a faculty member. At Lone Star College System she was a faculty member and was nominated faculty of the year by her students. While she was working at Lone Star College Willowchase (now Lone Star College University Park) she was informed about the Community College Leadership Program at The University of Texas at Austin. She began the program in May of 2008.

To date, Marie serves as the System Compliance Officer for workforce and academic programs for Houston Community College. Marie currently consults on the topics of developmental education, instructional and student services best practices, curriculum and assessment and relationships. Her love for writing has inspired her to be a grant writer to support the many organizations she is a member of.

Marie continuously works to improve education in Sierra Leone, West Africa and her community locally in Houston, TX. She currently serves as Chair of the College/University Advisory Board for ICCTC (International Community College Town Center Sierra Leone) and Fund Development Chair-Houston for the organization. She recently founded the Sesay Foundation to support the teaching and learning needs of students at St. Teresa Primary School in the Bumban Village of Sierra Leone, West Africa. In Texas she is a charter member of Bay Area Houston Alumnae Chapter and Diamond Life Member of Delta Sigma Theta Sorority, Inc (community service sorority) and currently lives and works in Houston, TX.

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